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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

JANUARY, 1969

VOLUME 66, NUMBER 1

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St. Louis, March 20-23**

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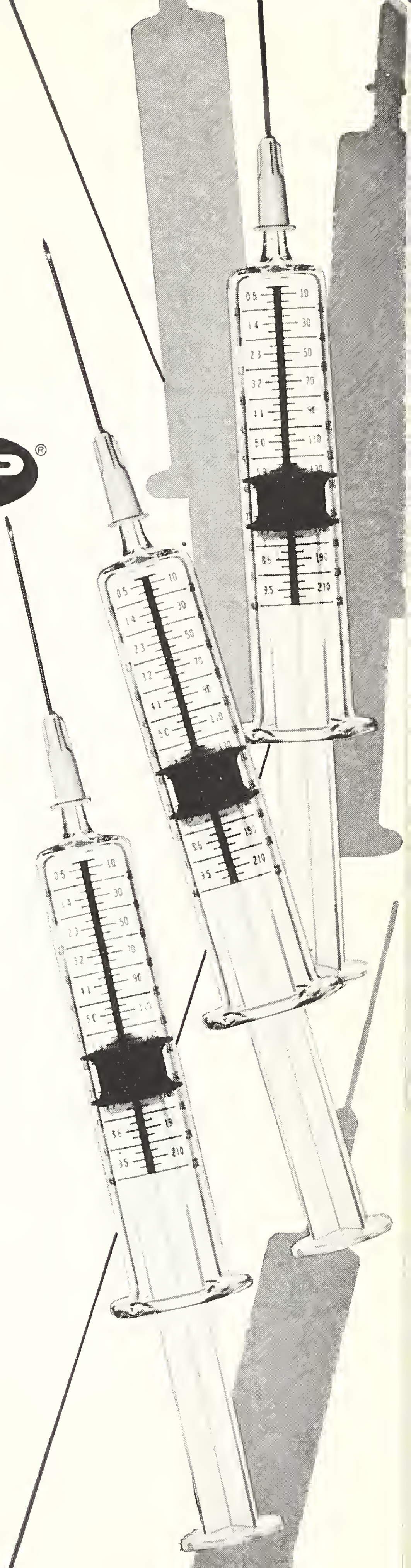

Missouri Medicine

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Dr. Wilbur Cites 'Epoch of Change' at AMA Clinical Convention

Dwight L. Wilbur, M.D., President of the American Medical Association, stated that "we are immersed in an epoch of change" in his report to the House of Delegates at the 22nd Clinical Convention held in Miami Beach on Dec. 1-4, 1968. He added, "We cannot emerge from it as respected leaders unless we guide the course of change. . . . Our guidance in helping change all elements of society that affect the people's health in an orderly, balanced sequence is the price of our continued esteem as a profession and an organization."

President Wilbur listed five areas to which he believes the medical profession should give its greatest attention. They are (1) making high-quality health care available for everyone in America at as reasonable cost as possible; (2) putting a rein on hospitalization costs; (3) developing more reasonable and more realistic expectations by the public; (4) unifying the medical profession and maintaining constructive liaison with other groups; and (5) planning for an orderly and enhanced future which would include increasing dependence upon the Board of Trustees of AMA to lead in planning and development for the future.

MSMA was officially represented at the Convention by AMA Delegates Stanley S. Peterson, Arthur W. Neilson, J. Loren Washburn and Hector W. Benoit, Jr.: Alternate Delegates Robert W. Kelley, Hugh E. Stephenson, Jr., and James C. Sisk: President David N. Kerr; and President-Elect Doyle C. McCraw.

The following is a brief summary of actions taken by the House:

Discrimination—The Council on Constitution and Bylaws presented wording for the antidiscrimination amendments in response to the House's wishes expressed at the Annual Convention in June, 1968. The following overall statement on discrimination was added as a new Section 3 of the Bylaws, Chapter I:

> ***Section 3—Discrimination in Membership***
>
> Membership in the American Medical Association or any of its constituent associations shall not be denied or abridged on account of color, creed, race, religion or ethnic origin.

Provision for disciplinary action was provided by adding this sentence to Chapter XI, Section II, (D) (7):

> If the Council determines that the allegations (of discrimination against physician applicants for membership) are indeed true, it shall admonish, censure or, in the event of repeated violations, recommend to the House of Delegates that the state association involved be declared to be no longer a constituent member of the American Medical Association.

Osteopathy—The House adopted a Board report stating these objectives with respect to osteopaths:

To "assure the provision of the best possible health care to the American people; make available to students and graduates in osteopathy, education of the same high standards as prevail in undergraduate, graduate and continuing educational programs in medicine; provide avenues whereby qualified osteopaths may be assimilated into the mainstream of medicine."

To achieve those objectives, the AMA recommends that each school of osteopathy improve its teaching program by strengthening its faculty and improving its facilities and resources; invites schools of osteopathy and their accrediting agencies to consult with the AMA and the Association of American Medical Colleges; suggests that accredited hospitals may accept qualified osteopaths on medical staffs; suggests that medical specialty boards may accept osteopaths for examination if they have completed AMA-approved internships and residency programs and have met other regular requirements; requests that as specialty boards declare intent to permit examination of osteopathic graduates, appropriate AMA-approved residency programs be opened to qualified osteopathic graduates; suggests opening AMA-approved internships to qualified osteopathic graduates; recommends that determination of qualification be made at the level of the medical staff, the county medical society or the review committees and boards having appropriate jurisdiction; and suggests that AMA, state and county societies and other affected organizations "may proceed to make such constitution and bylaw changes as are necessary to implement the foregoing."

The House also "suggests that each county and state medical society may accept qualified osteopaths as active members and thereby provide for their membership in the American Medical Association" and instructed the Council on Constitution and Bylaws to prepare "appropriate Bylaw amendments so that qualified Doctors of Osteopathy may be admitted to full active membership" in the AMA.

Organ Transplants—The House adopted a statement on heart transplantation which makes these five points:

1. The preservation of good medical practice demands that the evolution of therapy be orderly.

"The staff of a hospital or medical center planning to initiate such a program should have: (1) adequate background in animal research so that experience is gained as to the problems, potentials and limitations of cardiac transplantation; (2) experience in immunosuppressive therapy and an adequate source of antilymphocyte globulin of known quality; (3) a protocol of clinical research adequate to follow and evaluate the course of the patient."

2. Due regard for the welfare and safety of each individual patient is paramount.

3. Heart transplantation has brought certain medical, ethical and legal questions into critical focus. "Paramount among them is the determination of death. The right of the prospective donor to the best possible medical care—a right which his potential role as organ donor must not be allowed to abrogate—must remain sacred. The growing ability of medical science to maintain some form of biological function for prolonged periods adds to the difficulty of defining the point of irreversible dissolution.

"The cause of death must be evident and of an irreversible type. The fact of death must be established by adequate, current and acceptable scientific evidence in the opinion of the physicians making the determination. The determination of death in organ donors must be made by no less than two physicians not associated with the surgical team performing the transplant."

4. The potential for heart transplantation, whatever that may prove to be by subsequent clinical experience, will be "severely limited by the shortage of potential organ donors. . . . Basic research into the causes of heart disease and of hypertensive vascular disease is . . . of vital importance, since the only ultimate solution to the problem of heart disease lies in its prevention."

5. "Human heart transplantation has been accompanied from the outset by a degree of public awareness and attention almost without parallel in medicine. . . . It is imperative, therefore, that the public be made fully aware of the potentialities and limitations of heart transplantation as those are currently understood and as that understanding is modified by subsequent experience. . . . Only by preserving public confidence in the judgment of the physician, can the orderly progress of medicine be maintained."

The House also approved the Uniform Anatomical Gift Act and urged each state medical association to give it careful consideration "with a view to seeking its adoption in its state."

Health Care Costs and Financing—The House asked the Board of Trustees to devote sufficient staff, facilities and funds to develop an "effective program for immediate and on-going studies of health care costs" and to report the status of the program at the 1969 Annual Convention. The Board also was requested to expedite and expand existing programs and, "where necessary, develop new programs for the following purposes: (1) analysis of health care costs and expenditure data developed and reported by other sources; (2) definitions, reports and explanations of the several major categories of health care expenditures; and (3) dissemination of the data, findings and conclusions of such studies to constituent medical societies, news media and state and federal governmental authorities."

Matters of Patient and Public Interest—The House adopted the Council on Medical Education's "Special Requirements for Residency Training in Family Practice" and resolved that the AMA "affirm the importance of providing appropriate recognition for family physicians through approval of a primary specialty board for family practice and that the Council on Medical Education be encouraged to continue its efforts with the American Academy of General Practice and the AMA Section on General Practice to achieve this goal."

Education—A program for formal recognition by the AMA of physicians who participate in continuing medical education was adopted, along with a proposal to fund the recognition award.

Internal (AMA) Interest—It was resolved that the AMA adopt the following definitions and distribute them to all state medical associations for their individual consideration and guidance:

"'Usual' is defined as the 'usual' fee which is charged for a given service by an individual physician in his personal practice, i.e., his own usual fee; 'Customary' is defined as that range of usual fees charged by physicians of similar training and experience for the same service within a given specific limited geographic or socioeconomic area; 'Reasonable' is defined as a fee which meets the above two criteria, or, in the opinion of the responsible local medical association's review committee, is justifiable in the special circumstances of the particular case in question."

The House also resolved that "whenever these terms are used in contracts or laws, that they be specifically defined in those documents."

Other important subjects considered and acted upon by the AMA House of Delegates included Organ Transplants, Allied Health Personnel, Medicine and the Government and other items of internal interest to the AMA.

Former Executive Vice-President Addresses House—Following the adoption of three resolutions commending F. J. L. Blasingame, M.D., for his services to the AMA as delegate, trustee and Executive Vice-President, Dr. Blasingame addressed the House briefly at its opening session. By a vote of the House, his complete remarks will be published in the Proceedings of this Clinical Convention.

Complete Information

Further details of the 22nd AMA Clinical Convention may be found in *The Journal of the American Medical Association* and *The AMA News.*

Heart Transplant Pioneers To Be Annual Session Speakers

Drs. Cooley And Leachman To Be On March Program

Two physicians who are pioneers in the heart transplant field in the United States will be featured on the program for the 111th Annual Meeting of the Missouri State Medical Association scheduled for March 20-23, 1969 at the Chase-Park Plaza Hotel in St. Louis.

Dr. Denton A. Cooley and Dr. Robert DeWitt Leachman, both of Houston, Texas, will participate in the program Friday morning, March 21.

The program, entitled "New Hope for the Failing Heart," will be sponsored by the Missouri Heart Association. Dr. Albert M. Estes of Cape Girardeau will be the moderator. Dr. Cooley will discuss "The Surgical Approach" and Dr. Leachman will emphasize "The Medical Approach."

The appearance on the program by these two eminent authorities on the heart will be among the highlights of Friday's activities at the annual session.

CONVENTION PROGRAM ON PAGE 11 'MISSOURI MEDICINE'

The Missouri State Medical Association's Medical Economics Committee will sponsor a series of programs on Friday as will the Association's Committee on Maternal Welfare. Others sponsoring programs on Friday will be the Missouri State Surgical Society, the Missouri Chapter of the American Academy of Pediatrics and the Missouri Federation of Urologists.

Missouri's three medical schools will sponsor programs on Saturday, March 22. Participants will include the Department of Otolaryngology, Washington University School of Medicine; the Department of Internal Medicine, St. Louis University School of Medicine; and the Department of Pathology, University of Missouri School of Medicine — Columbia.

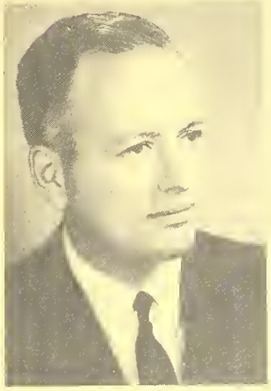
Other program sponsors on Saturday will include the MSMA Committees on Industrial Health and Medical-Legal Activities; the Missouri and Bi-State Regional Medical Programs; the Missouri Academy of Psychiatry; the Missouri Ophthalmological Society, Inc.; and the Missouri Society of Internal Medicine.

At least four luncheons have been scheduled on Friday. The general luncheon will feature as guest speaker Robert L. Burnes, executive sports editor of the St. Louis Globe-Democrat. Other luncheons will be sponsored by the Fifty-Year Club, the Committee on Maternal Welfare and the University of Missouri Alumni.

The general luncheon on Saturday will feature as the speaker the Honorable Durward G. Hall, M.D., member of the United States House of Representatives from Springfield.

Saturday night's annual banquet in honor of Past Presidents of the State Association will feature Timothy Hays, mayor of Whoopup, Mo., as guest speaker.

A dance is scheduled at the conclusion of the banquet, the first time such an affair has been scheduled at the MSMA Annual Session in St. Louis.



Dr. Denton A. Cooley

Dr. R. D. Leachman

Dr. Denton Arthur Cooley is a native of Houston, Tex., and a graduate of the University of Texas at Austin and of the John Hopkins University School of Medicine at Baltimore, Md.

He took his internship and residency, both in surgery, at John Hopkins and later was a Senior Surgical Registrar in Thoracic Surgery at Brompton Hospital for Chest Disease in London, England.

Dr. Cooley's Board certifications are with the American Board of Surgery and the Board of Thoracic Surgery.

His appointments include Professor of Surgery at Baylor University College of Medicine, Houston; Chief of Cardiovascular Surgery at St. Luke's Episcopal Children's Hospital, Houston; Physician-in-Chief for the Texas Heart Institute; Attending Physician at Methodist Hospital and Ben Taub General Hospital, Houston; and Consultant in Cardiovascular Surgery at Veterans

(Continued on back page)

MSMA News

Last Chance To Register For Officer's Conference

MSMA members attending the Second Annual County Society Officer's Conference of the Missouri State Medical Association will have the opportunity to discuss the problems and opportunities facing organized medicine. The conference will be held on Saturday and Sunday, Jan. 11-12, 1969, at the Ramada Inn, Jefferson City.

A special discussion period is scheduled from 9:30 until 10:45 Sunday morning. Conference participants will be divided into groups for this session and have the opportunity of both listening and being heard on matters of interest.

The conference is open to all members of the Missouri State Medical Association. Special invitations have been sent to officers and legislative and public relations committee chairmen of all county medical societies and to state association officers. Others desiring to attend should use the registration blank printed on this page. Pre-registration is requested and the time is short. Advance room reservations should be made directly with Ramada Inn.

The conference opens at 1 PM Saturday and concludes with a buffet luncheon on Sunday. The conference theme is "Super Bowl Huddle" since the Super Bowl Football Game is being played in Miami on Sunday afternoon, January 12. Television coverage of the game will be available after the buffet.

Activities Sunday morning in addition to the discussion session include talks by Dr. Arthur W. Neilson, St. Louis, a Delegate to the AMA; Dr. David N. Kerr, St. Louis, President of MSMA; and Dr. Wilson Ferguson, Sikeston, President of the Semo County Medical Society. The Sunday program opens at 8:30 AM.

At 11 AM, presidents of county societies will meet with MSMA President-Elect Dr. Doyle C. McCraw of Bolivar, and society secretaries will meet with MSMA Executive Secretary Ray McIntyre. Other conference participants will attend a session with AMA Communications Director Mr. Jim Reed of Chicago.

Mr. Reed also will be a participant on Saturday afternoon's program. Other Saturday afternoon participants include Dr. Gerald Miller, Kansas City, chairman of the MSMA Public Service Committee; Mr. Kenneth Bopp, Jefferson City, director of the Missouri Comprehensive Health Planning Agency; Dr. John Matthews, Jefferson City, chairman of the MSMA Legislative Matters Committee; Republican State Senator A. Clifford Jones, Ladue; and Democratic State Representative Ronald Reed, St. Joseph.

The Association will sponsor a social hour starting at 6 PM Saturday to be followed by a banquet at 6:45 PM. Banquet speaker will be Mr. Robert M. White II, publisher of the Mexico, Mo. *Ledger.*

Wives will be welcomed at all sessions but are especially invited to attend the Saturday night events and the Sunday buffet.

Tickets for the banquet and buffet will be on sale at the registration desk.

ANNUAL MEETING Continued

Administration Hospital in Houston, Brooke Army Hospital in San Antonio and Wilford Hall Hospital at Lackland Air Force Base, Tex.

Dr. Cooley has received many awards and honors.

Dr. Leachman is a native of Amarillo, Tex. He attended Amarillo Junior College and graduated from West Texas State College, Canyon, Tex. He is a graduate of Baylor University College of Medicine at Houston.

He took his internship at Jefferson Davis Hospital in Houston and his residency in Internal Medicine at the same hospital. Post-graduate work included work in infectious diseases at Baylor and pediatric cardiology at Texas Children's Hospital, Houston.

Dr. Leachman is a Diplomate with the American Board of Internal Medicine and with the American Board of Cardiology. He is a Fellow of the American College of Cardiology and of the Clinical Council on Cardiology of the American Heart Association.

His appointments include Associate Professor of Internal Medicine, Baylor University College of Medicine; Director of Cardiology, St. Luke's Episcopal Hospital, Houston; Consultant in Cardiology, Texas Children's Hospital, Houston; Attending Physician at Ben Taub General Hospital, Houston; and Consulting Cardiologist to the U.S. Air Force, Wilford Hall Air Force Hospital, San Antonio.

Like Dr. Cooley, Dr. Leachman has received many awards and honors.

County Society Officer's
Conference
Jan. 11-12, 1969

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Preliminary Program
111th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

Chase-Park Plaza Hotel, St. Louis March 20-23, 1969

Thursday, March 20

11:00 AM Registration of Delegates.
1:30 PM House of Delegates Meeting, opening session.
4:30 PM Reference Committee Meetings.

Friday, March 21

8:00 AM Registration.
9:00 AM *New Hope for the Failing Heart.* (Sponsored by the Missouri Heart Association.)
Moderator: Albert M. Estes, M.D., Cape Girardeau.
Panel Participants:
1. *The Surgical Approach,* Denton A. Cooley, M.D., Houston, Texas.
2. *The Medical Approach,* Robert D. Leachman, M.D., Houston, Texas.

9:00 AM Panel. (Sponsored by the MSMA Committee on Medical Economics.)
Moderator: Rae W. Froelich, M.D., Lebanon
1. *Medicaid Program in Missouri,* Mr. Proctor N. Carter, Director, Division of Welfare, Jefferson City.
2. *The Responsibilities of Physicians as Medical Staff Members,* Otto Arndal, M.D., Assistant Director, Hospital Accreditation Program, Chicago.

10:30 AM Intermission to view exhibits.
11:00 AM Continuation of Medical Economics Program.
3. *Liability of Physicians in Completion of Staff Duties,* Norris H. Allen, Attorney, St. Louis.
4. *Corporate Practice Today and Tomorrow,* William A. Boles, Attorney, St. Louis.
5. *Current Tax Developments of Special Interest to Medical Practitioners,* Joseph R. McKenzie, Internal Revenue Agent, St. Louis.

11:00 AM *Management of Endometriosis,* George H. Gardner, M.D., Chicago. (Sponsored by the MSMA Committee on Maternal Welfare.)
12:00 NOON Fifty-Year Club Luncheon
Committee on Maternal Welfare Luncheon
General Luncheon: Guest Speaker, Robert L. Burnes, Executive Sports Editor, *St. Louis Globe-Democrat.*
University of Missouri Alumni Luncheon.
2:00 PM Program sponsored by the Missouri State Surgical Society.
Moderator: Cyril J. Costello, M.D., St. Louis.
Panel Participants:
Management of the Patient With Cancer, Thomas F. Nealon, Jr., M.D., New York, N. Y.
Discussant: John S. Spratt, Jr., M.D., Columbia.
2:00 PM Program Sponsored by Missouri Chapter, American Academy of Pediatrics. (Panel Participants and Moderator to be announced.)
2:00 PM *Urinary Tract Infection in Childhood—From Origin to Correction,* Richard P. Lyon, M.D., Berkeley, California. (Sponsored by the Missouri Federation of Urologists.)
3:30 PM Intermission to view exhibits.
4:00 PM House of Delegates, second session.
5:30 PM Missouri State Medical Foundation Annual Meeting.
6:00 PM Reference Committees.

Saturday, March 22

8:00 AM Registration.
9:00 AM *Program on Otolaryngology.* (Sponsored by the Department of Otolaryngology, Washington University School of Medicine.)
Moderator: Joseph H. Ogura, M.D., St. Louis.
Panel Participants:
Malcolm Stroud, M.D., St. Louis
Lindsay Pratt, M.D., St. Louis
Hugh Biller, M.D., St. Louis
Joseph H. Ogura, M.D., St. Louis

9:00 AM Medical Symposium (Sponsored by the Department of Internal Medicine, St. Louis University School of Medicine.)

Moderator: Thomas F. Frawley, M.D., St. Louis.

1. *Newer Techniques in Diagnosis Using Radioisotopes,* Robert M. Donati, M.D., St. Louis.
2. *Current Management of Patients With Chronic Renal Failure: Conservative Programs, Dialysis, Transplantation,* John J. Garrett, M.D., St. Louis.
3. *New Concepts in Hypertension,* James B. Lee, M.D., St. Louis.
4. *Allergy Emergencies,* Raymond G. Slavin, M.D., St. Louis.
5. *Value and Dangers of Submaximal and Maximal Stress in the Detection of Coronary Artery Disease,* Edwin E. Westura, M.D., St. Louis.

9:00 AM *The Changing Role of Pathology in Medical Practice* (Sponsored by the Department of Pathology, University of Missouri School of Medicine, Columbia.)

Moderator: Vincent P. Perna, M.D., St. Louis.

1. *The Concept of a Modern Academic Department. Teaching: Undergraduate, Graduate and Continuing Education,* D. A. Senhauser, M.D., Columbia.
2. *Service: Computerized Laboratory Data System—Its Clinical Potential,* James T. Packer, M.D., Columbia.
3. *Research: Multiphasic Screening, Does It Have a Place in General Medicine Practice?,* H. J. Van Peenan, M.D., Columbia.

10:30 AM Intermission to view exhibits.

11:00 AM *The Medical Report—Use and Abuse* (Sponsored jointly by the MSMA Committee on Industrial Health and Medical-Legal Committee.)

Moderator: Mr. Rexford H. Caruthers, St. Louis.

1. *Cardiac Problems Related to Medical-Legal Affairs,* Maxwell G. Berry, M.D., Kansas City.
2. *Medical Reporting From a Neurosurgical Standpoint,* Keith Whittaker, M.D., Kansas City.
3. *Orthopedic Problems of Medical-Legal Importance,* Lee T. Ford, M.D., St. Louis.

(Additional speakers to be announced.)

11:00 AM *Innovations in Medical Care—What's RMP To You?* (Sponsored by Missouri Regional Medical Program and Bi-State Regional Medical Program)

Co-Moderators—Arthur E. Rikli, M.D., Columbia, MRMP and William Stoneman, III, M.D., St. Louis, Bi-State RMP.

1. *Introduction and Summation,* Glenn O. Turner, M.D., Springfield.
2. Subject: *How to Get More Medical Mileage Out of Yourself,* Representatives from both programs.

11:00 AM *Drug Abuse and Drug Addiction* (Sponsored by the Missouri Academy of Psychiatry.)

Moderator: George J. Lytton, M.D., Kansas City.

1. *Drug Abuse as a Public Health Problem,* Ronald J. Catanzaro, M.D., Columbia.
2. *Drug Abuse in Private Medical Practice,* Edmund V. Cowdry, Jr., M.D., St. Louis.
3. *The Drug Scene,* Donald B. Louria, M.D., New York, N. Y.

12:30 PM General Luncheon: Guest Speaker, Durward G. Hall, M.D., U. S. Representative, Washington, D. C.

2:30 PM *Glaucoma—A Problem for General Medicine.* (Sponsored by the Missouri Ophthalmological Society, Inc.)

(Panel Participants and Moderator to be announced.)

2:30 PM *Symposium on Malignancies Excluding the Lymphomas.* (Sponsored by the Missouri Society of Internal Medicine.)

Moderator: William A. Knight, M.D., St. Louis.

1. *The Chemotherapy of Malignancies,* Edward W. Reinhard, M.D., St. Louis.
2. *Immunologic Defects in Patients With Malignancies and Superinfections,* Donald B. Louria, M.D., New York, N. Y.
3. *Genetic Factors Implicated in Malignancies,* William S. Sly, M.D., St. Louis.

2:30 PM Program to be announced.

4:00 PM Intermission to view exhibits.

6:30 PM Social Hour for those attending the Banquet.

7:15 PM Annual Banquet in Honor of Past Presidents of MSMA.

Guest Speaker, Timothy Hays, Mayor of Whoopup, Missouri.

Social Hour for those attending the Banquet at 6:30 PM.

Dancing until Midnight.

Sunday, March 23

7:30 AM House of Delegates Meeting, breakfast and final session.

Special Feature

The American College of Surgeons— Today and Tomorrow

By

REED M. NESBIT, M.D.

President, The American College of Surgeons

The following is a transcript of the address which Dr. Nesbit delivered at the first fall meeting of the newly-formed Missouri Chapter of the American College of Surgeons on Sept. 27, 1968 in Columbia. Dr. Nesbit presents a brief history of The American College of Surgeons and its outstanding achievements and discusses its current goals.

Mr President, I deem it a great honor and privilege to have been invited to come here to attend your Missouri Chapter meeting. You have asked me to speak today on the American College of Surgeons and its present activities in promoting the welfare of the surgical patient.

The College was founded in 1913 for just this purpose and for no other motive. The organization was conceived in the mind of Dr. Franklin H. Martin of Chicago, who had founded the great *Journal of Surgery, Gynecology and Obstetrics* in 1905. He had been an invited guest at some of the meetings of the Clinical Society of Surgery. The members of this society then, as now, visited each other annually to attend operative clinics and exchange ideas of mutual interest and concern.

Dr. Martin observed the great educational value that this practical type of meeting held for the young men who comprised the clinical society. He also envisioned the value that the same type of meeting on a larger scale would hold for all surgeons. He conceived the audacious plan of organizing such a clinical meeting and proposed that his *Journal* invite its subscribers to visit the Surgical Clinics of Chicago. The *Journal* would organize the clinics in the hospitals of Chicago and invite prominent surgeons of the city to participate in its activities.

The invitation to attend this meeting was issued as an editorial in the September, 1910 issue of *S.G. & O.* The staff estimated and planned for an attendance of 200 visitors: 1,300 doctors came! The ten-day meeting was such an overwhelming success that, before its conclusion, there was a spontaneous movement which created an organization to make it an annual event. It was named "The Clinical Congress of Surgeons of North America."

The second Clinical Congress was held in Philadelphia, and the attendance and enthusiasm was so great that Dr. Martin and his associates realized that further growth might well bring about chaos at the meeting. The third Clinical Congress was held in New York City in 1912, and the attendance was even greater than before. Indeed, it was greater than the attendance that year at the American Medical Association meeting. Martin had foreseen that some means of controlling attendance was needed to prevent a complete breakdown so he brought along to the New York meeting a proposal to form yet another organization so that only clinicians of the highest standards and ethics could attend. He made his proposal at the business meeting of the Clinical Congress and the 2,600 doctors who attended voted to approve the formation of the society which was to be called the American College of Surgeons. The objective of this society was declared to be to "elevate the standard of surgery, to provide a method of granting fellowship in the organization and to formulate a plan which will indicate to the

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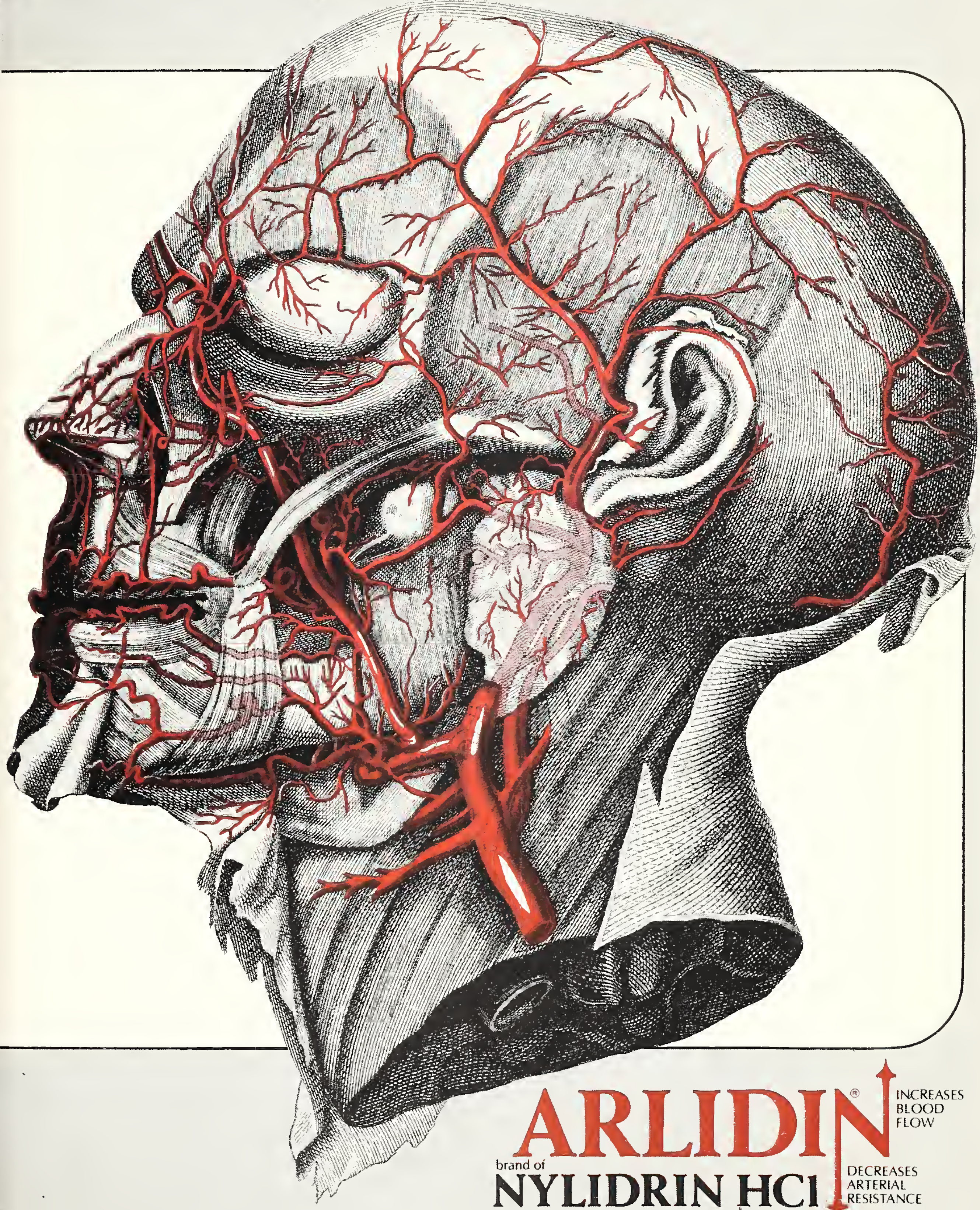

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public and to the profession that the surgeon possessing such fellowship is specifically qualified to perform surgery."

Since that time, there have developed examining boards in all surgical specialities which grant certificates, to men who can pass the examinations, that indicate the professional competence of the surgeon. But Fellowship in the College of Surgeons indicates to the public a higher degree of acceptance because the candidate for Fellowship must be approved by the local credentials committee of the College, which is made up of his peers, not only regarding his professional competence, but, also, his moral and ethical acceptability as a man and a surgeon. This distinction does not in any way reflect upon the character of any board certified physician who is not a Fellow, but it might well be more widely publicized in our public relations declarations of the high principles that the College espouses. The unselfish and humanitarian objectives of the College are the secret of its great power.

Today, the College has more than 29,000 Fellows is the largest surgical organization in the world and, without a doubt, is the most influential surgical society in America. More than 27,000 of these are active members in the United States and Canada; 1,400 are in 90 foreign countries throughout the world. Each year now about 1,400 new Fellows are initiated; 200 or more are from foreign countries.

The Board of Governors is made up of 185 Fellows who represent Fellows from states, provinces and countries, many surgical societies and the federal medical services. The Board of Governors acts as a liaison group between the Board of Regents and the Fellows and as a clearing house and advisory group for the Regents. It is of historic importance that, when the College of Surgeons was organized, the general management of the corporation was vested in the Board of Governors which, in turn, delegated the details of management to a Board of Trustees known as the Board of Regents.

Today, the management and authority of the College are the responsibility of the 19-member board of Regents, 18 of whom are elected to a three-year term by the Board of Governors at its annual meeting. This method of selecting the Regents imposes upon the Governors the responsibility and obligation of selecting Fellows who are truly representative of all segments of surgery and its several specialties. The President serves as the 19th Regent during his one-year term. The other Regents serve up to three terms.

The President, Vice-Presidents and Governors are elected by the Fellows at their annual meeting. The President, the Director, and the Chairman of the Board of Regents are the servants of the College and are its spokesmen, but they do not establish the policies of the organization. That responsibility belongs to the Board of Regents alone.

The American College of Surgeons can be justly proud of having inaugurated many innovations for furthering medical education and improving patient care such as the following:

It founded the Hospital Accreditation program in 1918 and maintained it alone for 35 years when the College called upon the American Medical Association, the College of Physicians and the American Hospital Association to collaborate in forming the Joint Commission on Accreditation of Hospitals.

Frederick Coller, in his presidential address to the American Surgical Association in 1944, said: "The American College of Surgeons not only attempted to designate the skillful in practice, but it improved the tools with which the surgeon worked. Through the standardization of hospitals, it provided the surgeon with an environment in which the well-being of the patient was safeguarded."

The College originated methods to evaluate hospital patient care which are today universally accepted. These are the Tissue Committee concept determining the justification for surgery, which is now routine in all approved hospitals and, also, the Medical Audit, which is used to evaluate quality of patient care in small areas.

In 1941, the College originated the Surgical Forum, which provides for young American

Surgeons an opportunity to report their research at our Clinical Congress and promptly publish their dissertations.

The College was the first medical organization in the world to speak out publicly about cancer. As early as 1913, it began its program of educating the public about cancer detection and control in lay magazines and the public press. Today, the College is the sole agency, through its affiliate, the American Cancer Society, which inspects and approves Cancer Programs in America.

Ours was the first organization to speak out publicly against abuses in surgery; such as fee splitting, ghost surgery and itinerant surgery. Although the College has publicly condemned these practices, it occasionally has been accused of having a do-nothing attitude about the matter in practice. Persons who make such accusations must be reminded that the College can do nothing at all except when specific and documented charges are brought against its own Fellows. When such accusations are brought in, they are referred to the state advisory committee for local investigation and then the facts are reported to the Central Judiciary Committee for consideration. In this way, accused Fellows who are innocent can be exonerated without the onus of newspaper or other public display, while those found guilty can be properly censured or expelled.

Another proud achievement of the College has been its Trauma Program which began in 1922 with its work in the area of industrial accidents. Our Trauma Committee has established standards for the equipment of emergency rooms and provided education for teams engaged in transportation of the injured patient. The field program of the Trauma Committee has established medical contact with various lay groups. These have included law enforcement officials, athletic trainees, safety councils, community clubs and manufacturers of inflammable clothing. Architects and engineers have taken great interest in the manual published by the College entitled "Modern Hospital Emergency Department."

The College has always interested itself in the training of the surgeon and in his continued education, but in the past it has paid little attention officially to undergraduate education. Now a *new* committee of the College has been established namely, "Surgical Education in Medical Schools." This committee has 28 members under the chairmanship of Dr. Claude Welch and will address itself to the serious problem of changes in undergraduate medical education.

More than half of the Fellows of the College are surgical specialists. In the past, there have been concerns expressed by some that the voice of the specialist has not been heard or heeded by the Regents and Officers. Today, happily, these concerns have been largely dispelled. Today, there are representatives of all the specialties on every major committee of the College. The Regents have set up Advisory Councils in each of the specialties. These councils have a dual function and responsibility. First, they are responsible for setting up the specialty programs of the Clinical Congress and the Regional College meetings. Second, and of equal importance, they are an avenue whereby the Specialty Societies which they represent can communicate directly with the Board of Regents on matters of mutual concern. The Regents have urged that the specialty societies make any recommendations that they have for the common good through this medium of communication. The Regents also employ this avenue of approach for communicating with the various specialty groups. It is a two-way line of communication. Let us all use it.

Yes, one of the proudest claims of the College is that it is a fellowship of *all* surgeons. At its meetings, specialists in every phase of surgical practice exchange ideas and explain new techniques and practices of common interest. We have a common heritage as surgeons and we have much which we need to share with one another. The College justly represents the whole body of surgery in matters which encompass the areas of common concern to all surgeons. Our future is what we, together, choose to make it.

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Notes of interest from Here . . . . and There

Dr. C. Stuart Exon has been elected president and chief of the medical staff at Memorial Community Hospital in Jefferson City. Elected with Dr. Exon were **Dr. Fred O. Tietjen**, vice-president, and **Dr. Charles W. Cooper**, Secretary-Treasurer. Drs. **John I. Matthews** and **Byron E. Watts** were elected to the Executive Committee.

Mr. Don Brummall, who served as an Executive Assistant to MSMA Executive Secretary Raymond McIntyre in 1968-1969, has accepted the position of Manager of Special Accounts for St. Louis Blue Cross-Blue Shield. His offices are located in Jefferson City. His duties include market research and development.

More than 100 staff doctors and their wives recently joined with the administrators of Alexian Brothers Hospital in St. Louis to honor **Dr. William C. Weinsberg** and witness the unveiling of his portrait which will hang inside the main entrance of the hospital. Dr. Weinsberg, who has been associated with the Hospital for 45 years, has retired as Chief of Surgery after 19 years in this position. He will continue as a staff physician.

Dr. Arthur E. Rikli has been named Coordinator of the Missouri Regional Medical Program replacing **Dr. Vernon E. Wilson**, now Vice-President for Academic Affairs of the University of Missouri. Dr. Rikli retains his post as Director for Operations, MRMP, as well as his faculty position of Professor of Community Health and Medical Practices at the University. He is an internationally-known authority on automated communications systems in hospitals.

Dr. J. R. Kuhn, Jr., Joplin, has been honored by the Board of Regents of Missouri Southern College. The Board named the next building on campus for him. Dr. Kuhn is Chairman of the Advisory Board for the College for the associate degree in nursing program.

Dr. Kenneth Glover, Mt. Vernon, is the recipient of a Life Service Award presented during homecoming activities at Southwest Baptist College in Bolivar. He has practiced medicine in Mt. Vernon since 1938–**Dr. George A. Carroll**, St. Louis, was presented a plaque by colleagues and administrators at DePaul Hospital honoring him for his service on the staff since 1931. Dr. Carroll served as head of the medical staff in 1957 and 1958.

Dr. William L. Macon, Jr., St. Louis, was elected to the Executive Committee of the Southern Medical Association for the coming year at the 62nd Annual Meeting conducted in New Orleans, Louisiana.

Dr. John T. Crowe Named President-Elect of MAGP

John T. Crowe, M.D., Cape Girardeau, was elected President-Elect of the Missouri Academy of General Practice during the association's 20th Annual Scientific Assembly on November 16-17 at the Chase Park-Plaza Hotel in St. Louis.

Dr. Crowe is a member of the staff at Southeast Missouri Hospital and St. Francis Hospital in Cape Girardeau. He is a member of the Cape Girardeau County Medical Society for which he served as Secretary in 1950-1951.

Other officers of the Academy elected at the meeting include Drs. John P. Mabrey, Plattsburg, Vice-President. Lois Wyatt, M.D., Kirkwood, was elected Secretary-Treasurer for a three-year term in 1967.

Appointments for three-year terms on the organization's Board of Directors were as follows: Drs. Leo L. Wacker, St. Louis; Ben H. Koon, Bolivar; and Paul R. Young, Raytown. Dr. Kenneth E. Knabb, Springfield, outgoing President, became Chairman of the Board of Directors.

Elected delegates to the American Academy of General Practice are Drs. Walter T. Gunn, St. Louis, and Walter J. Stelmach, Prairie Village, Kan. Drs. Charles A. Nester, St. Louis, and Charles A. Worley, Sweet Springs, were elected as Alternate Delegates to the national association.

All officers except the President-Elect took office immediately for the 1968-69 terms.

Dr. Barney W. Finkel, St. Louis, was installed as President of the Missouri Academy for the coming year.

The group's annual award for leadership in the improvement of health care in Missouri was presented to Durward G. Hall, M.D., Springfield, Congressman for the Seventh Congressional District.

Durward G. Hall, M.D., Springfield, Congressman from the 7th Congressional District (left) receives the MAGP Annual Citation Award for Leadership in the improvement of health care in Missouri. Presenting the plaque is Retiring President, Kenneth E. Knabb, M.D., Springfield.

One of the highlights of the installation banquet was the presentation of a proclamation signed by Governor Warren E. Hearnes proclaiming the week of November 17-23, 1968 to be Family Health Week.

Approximately 150 family physicians attended the two-day meeting.

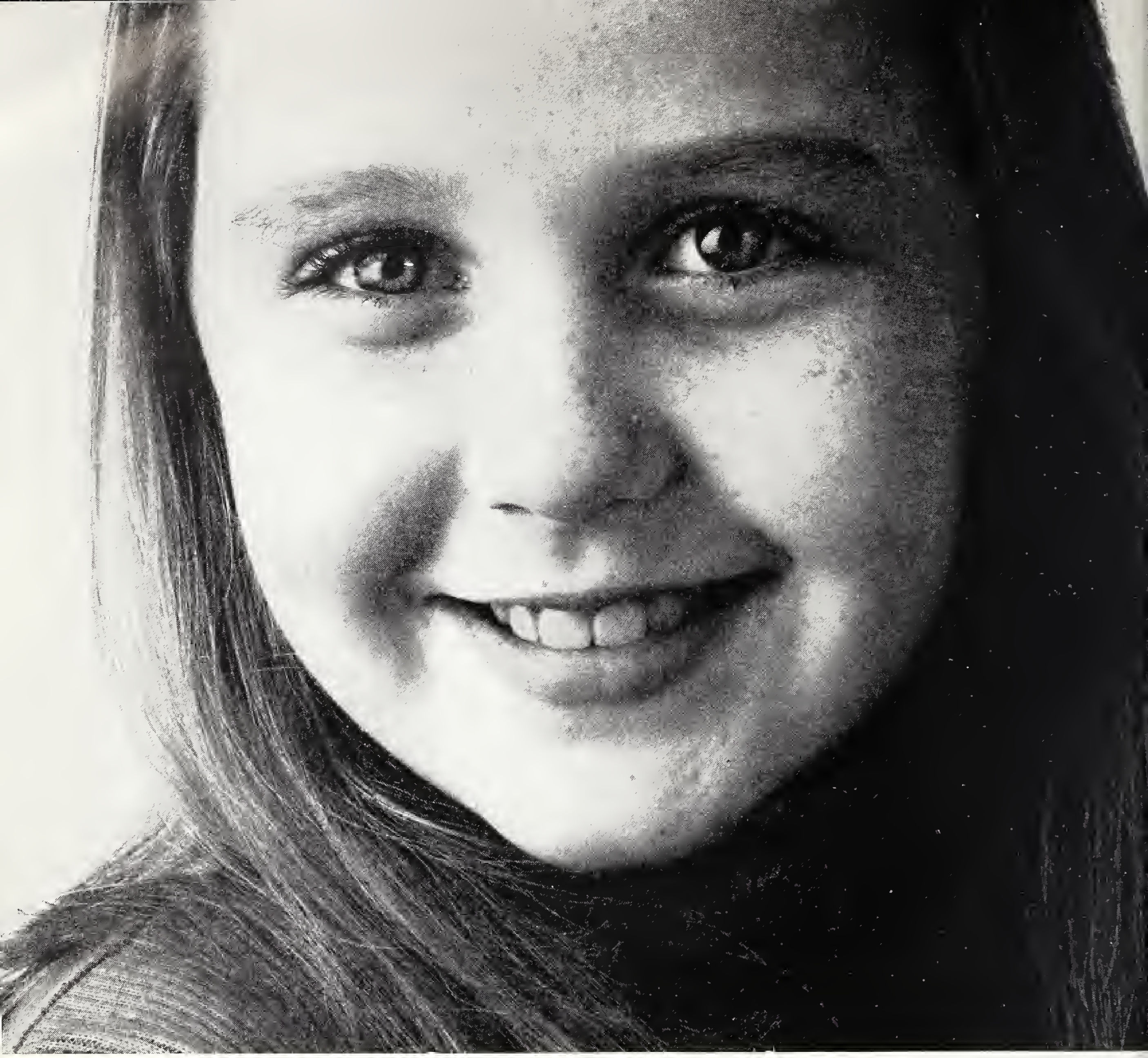
Conference on Rural Health To Be Held on March 21-22

"Meeting Rural Health Needs in Our Changing Times" will be the theme of the 22nd National Conference on Rural Health to be held at the Philadelphia Marriott Motor Hotel in Philadelphia on March 21-22.

Sponsored by the Council on Rural Health of the American Medical Association, the purposes of the conference are to develop effective planning methods for community health services, to discuss effective ways for delivery of health services in rural areas, to review methods for efficient utilization of health resources and to study community organization for meeting health needs.

The conference will convene at 9 AM on March 21 and conclude at noon on March 22. Registration opens at 8 AM Friday and there is no registration fee.

For additional information, write to the Council on Rural Health, American Medical Association, 535 N. Dearborn St., Chicago, Ill. 60610.



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Precautions: In suspected staphylococcal infections, perform proper laboratory studies including sensitivity tests. If overgrowth of nonsusceptible organisms occurs (constant observation is essential), discontinue penicillin and take appropriate measures. Whenever allergic reactions occur, withdraw penicillin unless condition being treated is considered life threatening and amenable only to penicillin. Penicillin may delay or prevent appearance of primary syphilitic lesions. Gonorrhea patients suspected of concurrent syphilis should be tested serologically for at least 3 months. When lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. Treat beta-hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent rheumatic fever or glomerulonephritis. In staphylococcal infections, perform surgery as indicated.
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WASHINGTON

The incoming Administration work on a health program was started with President-Elect Richard Nixon's appointment of John Dunlop, a Harvard University professor, to head a special task force.

Dunlop, 54, is a prominent economist and an expert in the manpower field. He has been a frequent adviser to the federal government since 1948.

In a letter to employes of the Department of Health, Education and Welfare, Secretary Wilbur J. Cohen, who will return to teaching at the University of Michigan, listed 13 health goals for the 1970s. He previously had said that his teaching position would leave time for him to work for new and expanded health programs.

Most of the goals are noncontroversial, and Cohen did not elaborate on details of implementation where controversy arises. The goals:

—Continued expansion of medical research and more rapid dissemination of new knowledge to prevent and cure illness.

—Elimination of economic barriers to medical care, through comprehensive health insurance and other public and private programs.

—Major reduction in infant mortality and early childhood diseases.

—Elimination of malnutrition.

—Improvement in the organization and delivery of medical care, with continued emphasis on high quality.

—Widespread transplantation of human organs and development of artificial organs.

—Expanded prevention and improved chances of recovery from heart disease, stroke, and cancer.

—Increase of health manpower and better use of professional skills.

—Elimination of large mental institutions and expansion of community mental health centers accessible to all.

—Family planning services available to everyone.

—Improvement in the quality of the environment, with major reduction in air and water pollution.

—Reduction of alcoholism, drug addiction, mental illness and mental retardation, and accidents.

—Elimination of smallpox, diphtheria, polio, whooping cough, and measles.

* * *

Developments in the drug field include starts on tests of an old drug in treatment of pneumonia and a new one for Parkinson's disease.

The National Institutes of Health started a widespread test of a polyvalent pneumococcal vaccine that was discarded 20 years ago with the entrance of antibiotics. Edwin M. Lerner, M.D., coordinator of the test program, said it had been demonstrated that persons die of pneumonia because of early stage damage and that antibiotics have not been a cure-all. The old vaccine, manufactured by E. R. Squibb and Sons, was licensed and found effective in 1948, but was taken off the market in 1952 because of lack of sales.

"Penicillin was the cure-all in those days," Dr. Lerner said. "It was felt that there was no need to vaccinate people. After all, we thought we could cure them."

The Public Health Service announced a program to test an experimental drug in treatment of Parkinson's disease. Robert Q. Marston, M.D., Director of the National Institutes of Health, said the drug, L-DOPA, may help "up to 75% of patients." He cautioned, however, it has "serious and unpleasant side effects" which must be carefully checked.

* * *

Regional Medical programs, a majority involving continuing education of physicians, are now underway in 24 areas, with 261 separate projects being carried out, according to a government report.

Thirty-one regions have not yet embarked on specific programs.

States and regions with the most listed projects to date are Tennessee (Mid-South), 27; Missouri, 25; Texas, 24; South Carolina, 16; Intermountain (Utah, Wyoming, Montana, Idaho, Nevada), 16; Michigan, 15; Georgia, 14; Kansas, 14; Washington-Alaska, 4; Albany (N. Y.), 10; Memphis (Tenn.), 10; California, 9; Rochester (N. Y.), 9; and Oregon, 7.

Help the Needy!

A patient of advancing years may appear to "have everything," but may well be in need—*medically*. You know the symptoms. She's tired most of the time. Though there's nothing wrong with her organically, she suffers from general malaise. Lassitude has become her way of life . . . vague aches and pains her major concern.

Such a patient has entered the "Mediatric Age"—that stage of her life in which she's an ideal candidate for MEDIATRIC. This preparation provides the anabolic benefits of gonadal steroids, plus a gentle mood uplift and the nutritional support she's apt to need. MEDIATRIC is intended to help keep her more alert and active, and relieve general malaise . . . to help restore that sense of physical and emotional well-being that the elderly *deserve* to enjoy.

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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H. RICHARD McFARLAND, M.D., ***Kansas City***

The Management of Multiple Sclerosis

Part I

Part I of this article presents a discussion of the general management of multiple sclerosis. The author points out that the establishment of the diagnosis and the early rendering of it to the patient are crucial to the management of this disease. He discusses the prevention and treatment of spasticity, contractures, muscle weakness and incoordination, as well as methods of increasing and enhancing activities of the patient's daily living. He also gives treatment suggestions for bowel and bladder disorders, decubitus ulcers and mental disturbances related to this condition. Dr. McFarland is Instructor of Neurology at Kansas City General Hospital and Medical Center and at the University of Kansas Medical Center, Consultant in Neurology at the VA Hospital and a member of the staff at St. Luke's Hospital and Research Hospital.

In the past two decades, numerous treatments have been proposed for the amelioration of the symptoms of multiple sclerosis. The more popular therapies included artificial pyrexia produced by intravenous "Typhoid-paratyphoid vaccine for protein shock";[1] arsenic;[1, 2] vasodilator drugs[3] including histamine diphosphate, papaverine hydrochloride, nicotinic acid, amyl nitrite inhalation and tetraethylammonium chloride; antihistamines;[2] muscle adenylic acid (My-B-Den);[4] and low fat diet.[5] None of these treatments is currently popular in the United States. Thiamine hydrochloride, vitamin B_{12} and other vitamins have been used extensively, but have only supportive value. The effectiveness of multiple blood transfusions is still being evaluated.[6] Many "common sense" recommendations have been made. They include prolonged rest;[7] removal of sources of infection, such as teeth and tonsils; energetic treatment of anemia, infection and allergic conditions; loss of weight; avoidance of exertion or fatigue; cessation of smoking and alcohol consumption, etc. None of these empiric measures has had controlled study. Perhaps the most extensively investigated and administered drugs are the glucocorticoids and corticotropin (ACTH).

Diagnosis

The treatment of multiple sclerosis begins when the diagnosis is established. The disease is characterized by widespread areas of demyelination followed by gliosis in the nervous system, which is disseminated in space and time (disseminated sclerosis). The first symptom in one-third of the cases is weakness of one or both of the legs and a disturbance of vision in one-third more.[8] Incoordination and signs of pyramidal tract damage frequently are associated with the former, while retrobulbar neuritis and nystagmus are common with the latter. Remissions and relapses and a highly unpredictable course can be expected. An abnormal cerebrospinal fluid occurs in about 60% of all cases. The abnormality may be in any of the following: first or second zone colloidal gold curve, elevated gamma globulins, mild excess of mononuclear cells or increase of protein.[1] Where electrophoresis is available, a low beta-gamma globulin ratio is highly diagnostic.[9] Although there may be signs of disseminated central nervous system disease, the diagnosis is not given to a patient until the second bout occurs, unless the cerebrospinal fluid is characteristic. On the other hand, if a patient has disseminated disease which exacerbates and remits, the diagnosis of multiple sclerosis can be made with assurance even when the cerebrospinal fluid is normal. The importance of the physician arriving at a diagnosis in which he has confidence cannot be overemphasized. This should not necessitate multiple surgical diagnostic procedures, but rather, knowledgeable examination and observation.

Rendering the Diagnosis

Having made the diagnosis of multiple sclerosis, the next vital step is to impart this knowledge to the patient. There should be no exception to this rule. An early, confident rendering of the diagnosis can imbue him with a positive, cooperative attitude toward his physician and his disease. Failures to give the diagnosis frequently seem related to the physician's diagnostic insecurity or personal anxiety about the disease rather than a realistic fear of what emotional harm it will cause the patient.

The patient may be advised as follows: "The nature of your illness and the results of the examinations indicate that you have a disease called multiple sclerosis." Be certain to look directly at the patient when making this statement and note his reactions.

Three following types of reaction are common:

1. *A blank or puzzled expression.* This is a common response and usually indicates that he is unaware of the disease. Advise the patient that he has a disease in his nervous system which is not fatal, that he may have periods of symptoms followed by relative recovery, that these may be more frequent during the first five years of the disease, that you can relieve some of these symptoms and that you can help him attain a remission by treatment should he sustain a severe attack. Since many patients will read about their disease and tend to see others who are severely afflicted, prepare them by stating, "There is a rare, severe form of the disease, but with modern treatment even this course can be modified." Request that rather than reading about his disease from books, which are often morbid, that the patient bring his questions to you. This is the ideal time to make occupational or climatic adjustments. Certainly, if he has recurrent weakness of the legs, he should try to obtain a desk job. Also, if severe fluctuations of temperature cause exacerbations, a more stable climate might be efficacious. Although there is no solid evidence, many believe a constant, warm, dry climate is beneficial.

2. *"I was afraid that was it."* This group of patients is usually more informed, so begin by asking how they suspected the disease or what they know concerning it. Then proceed as suggested above, but in a slightly more detailed and sophisticated manner. Although they may seem despondent at receiving the diagnosis, patients frequently will express their gratitude for having "a load of doubt removed."

3. *"Oh no!"* The patient rarely accepts the diagnosis in a hysterical manner. If this occurs, utilize fundamental psychiatric principles and begin somewhat as follows: "I notice the words 'multiple sclerosis,' are very upsetting for you. Won't you tell me why?" Most will then relate some morbid literature or describe a debilitated patient they have known.

Do not rush, let the patient talk this out. Then empathize, "Now I can see why the words, 'multiple sclerosis,' upset you so." Notice the frequent use of the words, "multiple sclerosis," so that denial is impossible. By now, the patient should be somewhat calmer and notice that you have remained calm and seem to understand. Now quietly begin discussing the disease, starting with an optimistic revision of the patient's fears. Lastly, structure a rigid treatment program for him and reinforce the program during frequent office visits.

Psychotherapy

Only the eradication of the disease is likely to alter the validity of these words: "To date, these ministrations of the kindly physician have probably been, of all aspects of treatment, the most helpful to sufferers from the disease and remain the long-range foundation for assisting patients with multiple sclerosis along their rough and uneven path through life."[10]

As soon as a diagnosis is established, a positive, confident attitude toward the patient is imperative. The patient should not be allowed to deny his disease; it is far better for him to take an active interest in his disease and treatment. The doctor should consider that the patient has a nonfatal illness whose symptoms he can now treat. If, despite treatment the course is downhill, the doctor should continue optimistically. Through the necessary ministrations to prevent the complications of debilitating disease, he will instill confidence and hope.

The psychological management may seem easier if the familiar euphoric affect is present. Too often, however, these same patients suffer severe depressions. Depressive features are common in patients whose physicians have failed to impart confidence and optimism. Patients who receive adequate support rarely need psychiatric treatment, and psychotic symptoms requiring institutionalization are unusual. When other psychiatric disturbances occur, the premorbid personality influences the nature of the symptoms. With severe neurological deficits and debility, symptoms of despondency, emotional lability and intellectual impairment are frequent.

During outpatient visits, time is allowed for discussion of the patient's socio-economic and emotional problems, as well as physical. Where possible, he is guided, rather than instructed, in making decisions and given support and encouragement.

Medicinally, steroids may impart an euphoric effect which benefits some depressed patients. Twenty-five milligrams of imipramine hydrochloride (Tofranil) or 25 mg of amitriptyline hydrochloride (Elavil), four times a day, either alone or in combination with chlordiazepoxide hydrochloride (Librium), are helpful in alleviating depression. For those who have severe emotional fluctuations, chlordiazepoxide and diazepam (Valium) are effective. For chronic fatigue and lethargy, 5 mg of dextroamphetamine sulfate (Dexedrine), 5 mg of methamphetamine hydrochloride (Methedrine) or 10 mg of methylphenidate hydrochloride (Ritalin), every four hours during the day are useful. Psychiatric consultations should be obtained when a psychoneurosis persists or when psychotic symptoms occur. One should always keep in mind that other, independent diseases may arise in multiple sclerosis patients.

PHYSIOTHERAPY

Since inactivity is a factor in the development of bronchopneumonia, decubiti, thrombophlebitis and kidney stones, maintenance of maximal physical activity is encouraged. The goal is to utilize and enhance remaining functions in order to establish self-sufficiency within the limits of the disability. This is accomplished by several methods,[11] as follows:

Space limitations preclude publication of *The Management of Multiple Sclerosis* in a single issue. Therefore, this article will appear in three segments. Part I is included here. Parts II and III will be published in subsequent issues.

The extensive Bibliography also has been divided, but reference numbers will be continuous from installment to installment.

The following outline will give the reader an overall view of Dr. McFarland's work:

Part I

General Management

Part II

Serial Neurologic Examinations and Use
of Corticotropin and Glucocorticoids

Part III

Apparent Suppression of Symptoms
by an Estrogen-Progestin Compound

1. "Strengthening of residual motor units of a muscle only partially deprived of voluntary innervation so that inactivity may not cause atrophy or disuse of the normally functioning muscle fibers or strengthening of muscles which have become weak because more powerful or spastic antagonists mask the presence of some degree of remaining function."

The former is accomplished by active exercises, graduated to the degree of disability; the latter is accomplished by resistance exercises and stretching of the antagonists. Exercises are best carried out early in the day when fatigue is minimal. Exhaustion should be avoided.

The program must be kept realistic. Daily home exercises are practical, but frequent long drives to hospitals for physiotherapy are not. When a muscle has been deprived of most of its innervation, strengthening exercises are not beneficial and are most discouraging for the patient. Although some physicians continue exercises through exacerbations,[11] most recommend rest until the attack subsides.

2. "Training of synergists or calling upon other muscles for substitutive movements when prime movers are irreversibly affected."

3. "Use of devices which compensate for disabilities to accomplish the purposeful mo-

tions required for the activities of daily living." Such devices include hoists over bed; handles by toilet and along walls; rearrangement of appliances within the home; mechanical aids in dressing, such as zippers; special devices for eating and drinking; braces; crutches; and wheelchairs (these are thoroughly discussed in a monograph supplied by the National Multiple Sclerosis Society).[11]

Treatment of Factors Which Tend to Limit or Disrupt Locomotion

1. *Spasticity.* Measures which may afford temporary relief are massage, heat[12] or cold[13] and electrical stimulation. Steady, strong stretching by passive manipulation in a direction against the pull of the spastic muscle may be helpful in mild cases, but in severe spasticity of the lower limb, it may evoke a mass reflex and lead to contractures. Heavy resistance exercises of the uninvolved musculature for 20 to 30 minutes or more daily are intended to increase muscle strength and utilize residual innervation but, also, may relieve spasticity, though this usually is not permanent.

Marked improvement of spasticity often occurs when multiple sclerosis patients are treated with corticotropin or glucosteroids. In patients studied with spasticity, chlordiazepoxide proved more effective than a placebo in relieving spasticity.[14] The usual dosage is 10 mg four times a day. Diazepam, and to a lesser extent, meprobamate, also may be effective.

Since medical management of spasticity is improving, caution should be exercised before utilizing irreversible procedures, such as intrathecal alcohol,[12] phenol injections[15] or anterior rhizotomy.[11]

2. *Muscle weakness and fatigue.* Heavy exercise for sufficient periods is the best way to strengthen weak muscles, providing they have sufficient innervation. Despite the truth of this dictum, some patients will be unable to give sustained maximum effort due to fatigue or increased spasticity. Nonetheless, active exercise for weak muscles is to be encouraged; if very weak, at first against no resistance, then against gravity and manual resistance. An immobile limb should be taken through a range of motion by the therapist or by the patient himself with an assistive device such as a pulley. The activities of daily living are encouraged, especially walking, when possible.

3. *Contractures.* Contractures result from shortening of muscle fibers and consequent limitation in range of the affected joint. Prevention of contractures is extremely important. Active and passive movements of all involved joints and appropriate exercises aid in maintaining joints in proper positions.[12] To avoid flexion-adduction contractures, the patient should stand with abducted legs and sleep in the prone position. If chair-bound, he may use packs between his knees to prevent adduction and foot straps to prevent equinovarus deformity. If bed-confined, a firm mattress with bed boards and sandbags to prevent knees from externally rotating are helpful. Splints and braces may be needed for joints which have severe muscle imbalance. Contracture prevention is enhanced and simplified if the patient is able and interested in performing his own exercises or, if unable, is compulsive about having his exercises performed.

4. *Ataxia and incoordination.* Lesions of the cerebellum, which are common in multiple sclerosis, may result in jerkiness or clumsiness of action (incoordination). Hence, multiple sclerosis patients frequently have dysarthria, ataxia, postural imbalance and intention tremors.

Improvement in coordination and compensation for loss of proprioception may be attained through practice and increased use of visual sense. The Fraenkel[16] exercises serve these purposes. In brief, these consist of flexion and extension exercises of hips and knees and target tests with heels and, later, sitting and standing exercises, foot placement while walking and hand exercises. Where feasible, the exercises are performed before mirrors. The occupational therapist can recommend two-handed coordination exercises which may be done at home. Patients should be encouraged to continue their daily activities, i.e., to practice walking, to continue writing and drawing, etc.

Those treated with corticotropin occasionally experience less incoordination. This has been less apparent with glucocorticoids, and the experimental drugs designed for this purpose have been disappointing.

SPHINCTER DISTURBANCES

A frequent symptom of multiple sclerosis is a change in the ability to control micturition. Sclerotic plaques within the central nervous system may cause any one of the five types of neurogenic bladder; hesitancy of the early autonomous or reflex bladder, the incomplete emptying and overflow incontinence of the sensory or motor atonic bladder or urge incontinence of the uninhibited bladder. Hesitancy up to ten minutes is a common early symptom and requires no treatment, but prolonged retention may be obviated by 25 mg to 50 mg of oral bethanechol chloride (Urecholine) one hour before the desired elimination and may be repeated three to four times per day. Later, this is reduced to find a minimal effective dose. If catheterization or an indwelling Foley catheter become necessary, proper irrigations (as with dilute acetic acid, .25% solution) are essential. The urgency of the uninhibited or reflex bladder is often prevented by anticholinergic drugs, such as 15 mg of oral propantheline bromide (Pro-Banthine) four times a day, 50 mg of methantheline bromide (Banthine) four times a day or atropine sulfate. Bladder spasm is often relieved by glucosteroids and, occasionally, by chlordiazepoxide, or diazepam.[14] When urge incontinence persists despite drugs, a well-fitting condom drainage attached to the leg can be most helpful. When sensory and lower motor neuron involvement result in continual infection due to incomplete emptying, an indwelling catheter is needed. If the patient is paraplegic and requires permanent drainage of the bladder, cutaneous vesicostomy with a modified Lapides urinary ileostomy collector should be considered.[17] A five-year follow-up indicates that these patients are better able to handle their urinary evacuation and remain relatively free of kidney infection or loss of renal function when compared to patients with other types of operative diversions.[18]

Urinary tract infections should be treated promptly and effectively. A clean midstream urine sample is obtained for culture and antibiotic sensitivities. Infected urine is the rule with indwelling catheters and with overflow incontinence. Although the urine is always infected with a cutaneous vesicostomy, the upper ureters and kidneys remain sterile.

Every patient with urinary disturbance should have consideration for cystoscopy and correction of any mechanical hindrance to flow. Patients with reflex bladders may learn to "trigger" micturition volitionally by pressing on the abdomen, stroking the thighs or by anal stimulation.

Except in severe cases, rectal incontinence is uncommon, but constipation may accompany bladder symptoms. Fluid or diet alterations are tried first. One hundred milligrams of dioctyl sodium sulfosuccinate (Colace) daily as a softening agent or one to three tablets of bisacodyl (Ducolax) daily as a colon stimulant are often helpful. Enemas and purgatives may be necessary but should be used sparingly. Oily laxatives may prevent absorption of fat soluble vitamins and, therefore, are used only intermittently and with caution.

If the lumbosacral spinal cord is spared, most male patients can have an erection and ejaculation in response to local stimulation. While these functions are retained, the sense of orgasm may be lost with injury to the upper portions of the cord. Ejaculation may be lost with a lesion in the upper lumbar cord, and the ability to obtain an erection and appreciate sensation lost with an upper sacral lesion. In combined lumbosacral lesions, no sexual function is retained. The sexual function in females usually is not affected.

Decubitus Ulcers

In debilitated, confined patients it is difficult to prevent decubiti, but harder to cure them. Therefore, these following prophylactic measures are particularly important (from Gordon[11] with modifications):

1. Attention to local circulation by the minimizing of pressure over bony protuberances.
   a. Utilize an alternating pressure mattress.
   b. Turn patient every two hours.
   c. Avoid wrinkles in bed sheets.
2. Attention to local state of skin.
   a. Keep skin thoroughly dry.
   b. Use scultetus binder rather than adhesive to hold dressing.
3. Keep perineum and sacrum thoroughly clean.
4. Attention to nutrition.
   a. High protein diet (the value of a low fat diet in preventing relapses has not been supported).
   b. Supplementary vitamins.
   c. Anabolic agents, such as 5 mg of methandrostenolone (Dianabol) daily (their proposed benefits remain to be substantiated).

The methods of treating decubiti are numerous. Two programs are outlined, as follows:

For small and relatively superficial decubiti—

1. Adequate debridement.
2. Clean with phisohex four times a day, then
3. Dry gently.
4. Dab on thin layer of phisohex.
5. Dry with heat lamp for 30 minutes (keep lamp 18 inches from lesion).

For large decubiti—

1. Adequate debridement and cleansing.
2. Soak decubitus with saline for 30 minutes twice a day, but surrounding healthy skin should be protected from maceration with vaseline.
3. Neosporin powder sprinkled on decubitus.
4. Gelfoam powder sprinkled over neosporin.
5. Cover decubitus with gauze.
6. Wrap with Kerlix gauze, securely, but not tightly.
7. Allow to air dry by keeping pressure off the area through positioning or the use of a Foster or Stryker frame or Circlelectric bed.

When dealing with large ulcers, it is advisable to have surgical consultation since their debridement may be complicated and they may require skin transplants for covering.

The patient who has a progressive downhill course is discouraging to the physician who must resist neglecting the patient and increase his attentions. This approach, preventing complications before they occur or treating them early, has been highly rewarding. The total care of the debilitated patient concerns the field of gerontology and exceeds the scope of this paper.

Precautions

Although the "no-nots" have been overstressed, certain preventative measures seem indicated. Excessive fatigue and extremes of weather are often detrimental. Since infectious diseases are more severe and may coincide with a relapse, prevention is important. Once infection occurs, vigorous treatment is indicated. Necessary surgery is not contraindicated, but spinal anesthesia probably should be avoided when possible. There is evidence to suggest that there are more relapses in the six month period after pregnancy than in a comparable control group.[19] Since this has been attributed to the abrupt hormonal change following pregnancy, Alexander[6] has advocated hormonal replacements during this period. Avoidance of pregnancy is better rationalized on socio-economic and child care judgments.

Summary

Crucial to the management of multiple sclerosis is the establishment of the diagnosis and the early rendering of it to the patient in a positive and confident manner.

The prevention and treatment of spasticity, contractures, muscle weakness and incoordination are discussed, as well as methods of increasing and enhancing activities of daily living. Treatment suggestions for bowel and bladder disorders, decubitus ulcers and mental disturbances are given.

Encouragement and scrupulous attention by the physician prevent many complications and make the life of multiple sclerosis patients far more pleasant.

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Clinical Classification of Carcinoma of the Lung

A Preliminary Report

Clinical staging of patients with cancer, as noted by the Committee on Clinical Stage Classification of the International Union Against Cancer,[1] "facilitates the accurate, concise description of the apparent extent of disease in a way that can be readily communicated to others or reproduced by them." It has been found to be of great value in establishing groups which are similar with respect to the extent of disease and expected future behavior. The establishment in this way of such comparable groups is vital for the related purposes of choosing optimal therapy for a given patient, reporting end results, evaluating the benefits of different therapeutic techniques and designing clinical trials.

Because the curative therapy of lung carcinoma has been considered to be exclusively surgical, at least until recently, most results have been reported with cases classified in terms of surgical criteria of operability and resectability. However, these terms in themselves do not precisely describe the extent of the disease and their definitions vary between institutions and from one clinician to another. Furthermore, a staging system based on such criteria is not appropriate to the situation in which surgery is not the primary mode of therapy nor in which presurgical therapy, such as radiation, may markedly alter the disease.

The present study is a retrospective evaluation of a simple clinical staging system. The system was found to be easy to apply and effective in identifying a small group of cases which have a much more favorable prognosis than the remainder. The classification is summarized in Table 1. These stages were chosen on the basis of somewhat arbitrary judgments of the clinical criteria of tumor size and degree of regional involvement which are important in deciding upon therapy and estimating prognosis.

After the collection of data for this study had been completed, the International Union Against Cancer published a proposed classification for malignant tumors of the lung.[1] It differs from the system under consideration here in that the principal criterion for the primary tumor evaluation is not size, but region of involvement, i.e., hilar vs peripheral. Also, any pleural effusion with malignant cells is considered a distant metastasis rather than an extension of the primary tumor. No data are available to evaluate this scheme.

Method

The charts and roentgenograms of 208 new patients with carcinoma of the lung seen at the Hospital of the University of Pennsylvania between 1953 and 1958 were reviewed and the pertinent data abstracted. The Tumor Registry

TABLE 1

LUNG TUMORS
STAGE CLASSIFICATION

Stage	
0	No tumor mass. Evidence of cancer from positive cytology or bronchial carcinoma in situ.
I	A tumor mass less than 3 cm in diameter.
II	A tumor mass greater than 3 cm. in diameter, or not solitary.
III	A tumor mass (any size) with either (a) pleural fluid on the same side, or (b) local lymph node involvement.
IV	A tumor mass (any size) with either (a) pleural fluid on the same side and local lymph node involvement, or (b) evidence of direct extension to mediastinum, diaphragm, or chest wall.
V	A tumor mass with distant metastasis.
Tu	All cases of lung tumor without confirmation of cancer by some method.

In an attempt to develop a clinical classification for carcinoma of the lung, a system was tentatively proposed and tested retrospectively on a series of 208 cases. The preoperative evaluation showed the tumor to be limited to the lung in only a small proportion of cases. This small group had a substantially better survival record than did the remainder. Other groups having a meaningful correlation with prognosis were not established. The authors suggest that more extensive investigation will be necessary to determine an optimum system. Dr. Weigensberg is from the Department of Radiology, Lutheran Hospital and Dr. Raventos is Professor of Radiology, University of Pennsylvania School of Medicine. This work was supported in part by a Senior Clinical Traineeship of the Cancer Control Program, USPHS.

at the Hospital of the University of Pennsylvania was utilized as the source for the cases studied. Except for a small number of patients, approximately 15, who were excluded because suitable roentgenograms were no longer available, these were consecutive cases. No patients were lost to follow-up, and all were available for evaluation at least five years after diagnosis. Cases seen on all services, e.g., surgery, internal medicine, radiation therapy, neurosurgery, otolaryngology, etc. were included. Bronchial and tracheal carcinoid tumors and adenoid cystic carcinomas were not considered. Also excluded were three cases in which previously unsuspected small tumors without clinical manifestations were found at autopsy, death being due to an unrelated cause.

The diagnoses accepted and used in this study were those submitted by the pathology department at the time therapy was decided upon. Several pathologists were involved in this material, and it is highly likely that the diagnostic criteria for making the fine distinctions between the various histologic types were neither uniform throughout the study period nor from one pathologist to another. These difficulties in establishing precise and uniform criteria for histologic distinction of the various types of bronchial carcinomas have been lucidly discussed by Vincent, *et al*,[2] Liebow[3] and Goldman.[4] For these reasons, it is thought that the group listed as "Carcinoma, not otherwise specified" is a composite one containing squamous, poorly differentiated and undifferentiated tumors. The microscopic appearance of the tissue or cytologic specimens was not distinctive enough in these cases to warrant more precise specification. In those cases in which there was any question or doubt of the diagnosis of carcinoma, the slides were reviewed by the Department of Surgical Pathology.

Measurements of tumor size were made only from conventional roentgenograms taken at distances greater than 48 inches; almost all cases had 72-inch teleroentgenograms available and suitable for measurement. The maximum diameter of the lesion was recorded. PA films were almost always used for mensuration. In a few instances, however, this could be accomplished more readily and precisely on films exposed in the lateral projection. These minor variations are not thought to add any significant error to the study.

Results

The number and distribution of the patients with respect to stage and pathologic diagnosis are set forth in Table 2. Thirteen patients in their course never had histologic proof of the diagnosis, but they presented such convincing clinical and roentgenographic findings as to obviate any reasonable doubt of the diagnosis. All of these patients died, with tumor present, during the observation period. None survived longer than 25 months after diagnosis.

One hundred and twenty-eight patients had a positive cytologic or histologic diagnosis established before therapy was undertaken. An additional 67 were initially without such microscopic proof, but subsequently in their course had histologic confirmation of the clinical diagnosis upon which therapy was undertaken, usually by thoracotomy or by biopsy of a subsequently appearing metastasis. Stage for stage, there were only minor differences in mean and median survival times between this group and the larger one with histologic proof at the start of therapy. There was no difference in survival between these groups at the three and five year marks.

The small number of cases with limited extent of disease is worthy of note. There were no instances of Stage 0. This does not necessarily negate the value of such a distinct grouping. This type of case is most likely to be detected by routine cytologic screening of spontaneous or induced sputum, which was not in use during the period covered by this study.

TABLE 2

Histologic Type	*Stage I*		*Stage II*		*Stage III*		*Stage IV*		*Stage V*		*Tu*		*All Stages Combined*		
	NO. OF PATIENTS	MEAN SURVIVAL[a]	NO. OF PATIENTS	MEAN SURVIVAL[a]	NO. OF PATIENTS	MEAN SURVIVAL[a]	NO. OF PATIENTS	MEAN SURVIVAL[a]	NO. OF PATIENTS	MEAN SURVIVAL[a]	NO. OF PATIENTS	MEAN SURVIVAL[a]	NO. OF PATIENTS	MEAN SURVIVAL[a]	MEDIAN SURVIVAL[a]
Squamous cell	0	—	12	33	30	14	27	16	10	4			79	16	5
Carcinoma, not otherwise specified	2	77	9	19	28	11	11	4	20	3			70	10	5
Undifferentiated	0	—	3	52	8	5	9	5	3	2			23	11	3
Bronchiolar	2	38	1	1	0	—	0	—	6	4			9	14	3
Oat cell	0	—	0	—	0	—	7	3	3	3			10	3	1
Adenocarcinoma	0	—	1	95	1	60	2	3	0	—			4	40	4
Total	4	57	26	32	67	11	56	10	42	3	13	6	208	13	—
Median survival[a]	57		16		7		4		2		2				4

[a] Months.

The true frequency of this situation remains to be determined.

There were four tumors less than 3 cm, and only 30 (or 15% of the total) were limited to the lung (Stages I and II), as judged by the clinical criteria utilized. Bearing in mind that it is based upon *all* cases seen at our institution, this relative incidence is in accordance with the data on *surgically treated* cases of the Ochsner and Overholt Clinics as presented by Shimkin, *et al.*[5] Only 83 (16%) of their 518 cases had tumors less than 3 cm in size. Furthermore, only 30% of these 518 resected cases had tumors localized to the lung, as determined by surgery and pathologic evaluation of the removed tissues.

The largest single group was Stage III with 67 cases (or 34% of the total). This is in part attributable to the arbitrary assignment of all cases presenting with a hilar mass to the groups with node involvement, which was done because of the impossibility of differentially evaluating hilar node involvement in the presence of a hilar mass. Stage IV ranked second with 56 cases. Thus, 59% of all the cases had lesions, which, on the basis of preoperative clinical evaluation, were no longer limited to the lung but had extended to lymph nodes, pleura or other adjacent intrathoracic structures. This preponderance of cases in advanced stages when first presenting clinically is the general experience in the published reports.[6–8]

Aside from Stage I, in which by definition all of the tumors are less than 3 cm in diameter, there was no consistent progression in tumor size between the various stages.

Table 3 shows the expected male preponderance, which has been reported in the range of 85% to 90% by various authors.[3, 5, 6, 9, 10] There were no cases of oat cell carcinoma in women. Other than that, there appears in this material to be no predilection by sex for any specific type of tumor. Furthermore, the overall incidence of adenocarcinoma and bronchiolar carcinoma is less than that generally reported. In these respects, the experience in this group stands in contrast to that of others,[2, 9, 11] as summarized very well by Vincent, *et al.*[2]

The age distribution of the study population was similar to that generally reported.[3, 6, 11, 12] There was a striking preponderance of cases (74%) between the ages of 50 and 69, with 13% in each of the immediately preceding and following decades. The youngest patient, 37 years old, was alone in that decade. The age distribution within each stage was similar to that for the group as a whole.

The data on survival are given in Tables 2, 4 and 5 and Fig. 1. Survival times are directly and strikingly related to the stage of disease. Median survivals range from 57 months in Stage I to two months in Stage V. If one considers only those histologic groups with sufficient numbers of patients to warrant meaningful generalization, survival time is seen to be longest in squamous cell carcinoma and less in undifferentiated carcinoma, with the "Carcinoma, Not Otherwise Specified" group being intermediate. This is, of course, in accordance with the concept that this latter group is actually a heterogeneous one containing members of the other two. This survival pattern coincides with the experience of others.[2, 4, 5, 10, 13] The short survival of oat cell carcinoma cases is consistent with the advanced stages in which they presented and also is in accord with the findings of others.[4, 6, 10]

TABLE 3

DISTRIBUTION OF PATIENTS BY SEX AND HISTOLOGIC TYPE

	Males NO.	*Males* % OF ALL MALES	*Female* NO.	*Female* % OF ALL FEMALES
Squamous cell	72	39	7	25
Carcinoma, not otherwise specified	59	33	11	39
Undifferentiated	20	11	3	11
Bronchiolar	6	3	3	11
Oat cell	10	6	0	0
Adenocarcinoma	3	2	1	4
No tissue diagnosis	10	6	3	11
	—	—	—	—
Total	180	87%*	28	13%*

* Percentage of all patients.

TABLE 4

LONG TERM SURVIVORS

	3 Years	%	*5 Years*	%
Stages I and II	14/30	47	8/30	27
All other stages combined	8/178	4	3/178	2
All stages	22/208	11	11/208	5

The denominator in each fraction represents the total number of patients in the designated group, and the numerator the number alive and apparently free of tumor at the end of the specified interval.

TABLE 5

RESULTS OF LIFE-TABLE ANALYSIS OF SURVIVAL

Interval After Diagnosis MONTHS	*Survival For That Interval* %	*Cumulative Survival* %
0-1	77	77
2-3	70	54
4-6	77	41
7-12	55	23
13-24	64	14
25-36	73	11
37-48	82	9
49-60	89	8

Table 2 also shows the limited value of considering histology alone without respect to the stage of disease. Both parameters are critical.

Fig. 1 shows that the mortality from carcinoma of the lung follows a log normal distribution in common with the failure rates of car-

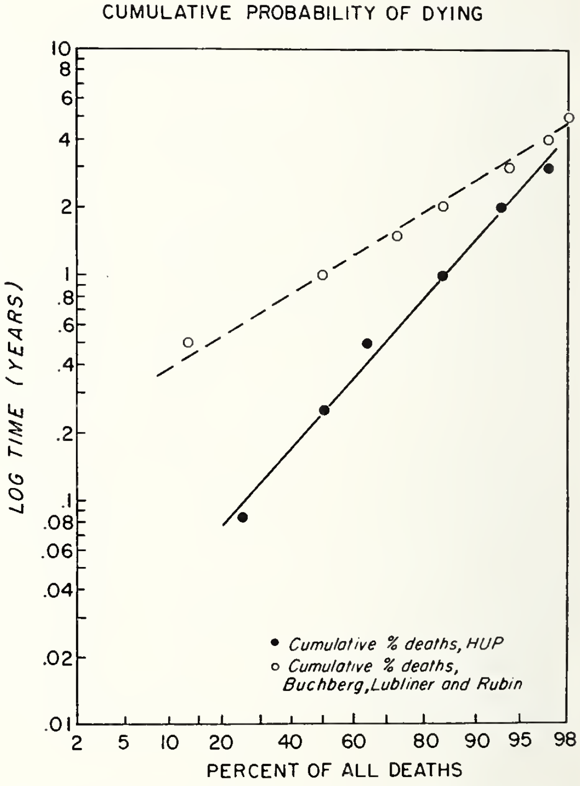

Fig. 1 The cumulative mortality from lung cancer follows a log normal distribution. The solid circles and lines represent the patients from The Hospital of the University of Pennsylvania reported in this paper. The open circles and broken line are a plot of data published on the duration of life in 443 patients with lung cancer not treated surgically.[13]

cinomas of other sites which have been so evaluated.[14] The data of Buchberg, *et al*[13] for 443 patients with lung cancer not treated surgically is similarly presented and supports the mortality distribution found in the group of patients investigated here. Because of differences in patient selection and starting points for these two studies, it is not justifiable to draw conclusions from the quantitative differences in the graphs. Examination of the case histories in the current study shows that the late deaths are, indeed, due to lung cancer. Of the seven patients who died between the three- and five-year intervals, six succumbed to the tumor and only one died without evidence of disease. Even among the 15 five-year survivals, four subsequently had a recurrence of tumor. One succumbed as late as ten years after diagnosis and one was still alive with known tumor at eight years. The actuarial life table analysis of survival is summarized in Table 5. Even though the vast preponderance of deaths occurs within two years of diagnosis, 10% to 20% of those who have survived to the three year point or beyond die in each subsequent year. Watson, similarly, in his groups of five and ten year survivors of lung carcinoma[15] found an appreciable number of recurrences appearing after prolonged intervals of apparent cure. The risk of dying from this tumor is thus seen to persist indefinitely, although the decreasing percentage of survivors dying each year demonstrates that this risk is indeed reduced with time.

Table 4 shows that there is a striking difference in survival rates between all those in Stages I and II combined (47% at three years and 27% at five years) and those in all the other stages (4% and 2% respectively). This difference was highly significant by the chi-square test (p less than .001 of both intervals).

In 96 patients, it was possible to confirm the clinical evaluation of the extent of the disease by the recorded findings at thoracotomy or autopsy done within two months of staging. These data are given in Table 6. In only 39 of the 96 (41%) was the preoperative evaluation entirely correct. Despite a conscious tendency to overdiagnose hilar lymph node metastases by roentgenographic standards, almost twice as many were missed as were incorrectly thought positive. A diagnosis of mediastinal node involvement was never made when it was truly absent, but it was present and not detected in 21 instances. Direct extension to the chest wall and the mediastinum also was difficult to detect, whereas the accuracy of diagnosis of pleural effusion seems satisfactorily high. Involvement of the opposite lung was not a real problem in terms of frequency.

TABLE 6

ACCURACY OF EVALUATION

	Number of Patients
Positive correlation	
(clinical evaluation confirmed)	39
Negative correlation	
(clinical evaluation in error)	57
Hilar nodes	
False positive preoperative diagnosis	10
False negative preoperative diagnosis	18
Mediastinal nodes	
False positive	0
False negative	21
Direct extension to mediastinum	
False positive	0
False negative	10
Direct extension to chest wall	
False positive	0
False negative	17
Spread to opposite lung	
False positive	0
False negative	1
Pleural effusion	
False positive	2
False negative	1

Discussion

The cases could be staged in this retrospective manner without much difficulty. The needed information was on record and had been obtained by relatively simple means before therapy was undertaken. The survival data show that this scheme does indeed establish divisions which are meaningful with respect to the outcome of the disease.

Two major deficiencies of this staging system are evident. The paucity of cases in Stage I (2% of the entire study group) renders this group too small to be meaningfully compared with others. The data do suggest a more favorable prognosis for this group which might be confirmed by collection of a much larger series. However, the practical utility of a class this small would be largely confined to prognostication in the individual case. For reporting purposes, very few institutions would accumulate a significant number of cases in this stage.

The other shortcoming is that only two groups are really identified by the criterion of long survival. One is composed of Stages I and II, containing the vast majority of long term survivors. The other encompasses 85% of all the patients but has very few survivors. One of the desirable attributes of a staging system is that it segregates people with the disease into several groups with sequential gradations in prognosis. This classification system for lung carcinoma may do so, as suggested by the progressive decrease in median survival with stage (Table 2), but the survival times for the unfavorable 85% of cases are so short that a very large series would be necessary to establish conclusively subclassifications within this class.

In summary, it might be said that two categories of lung cancer cases have been identified on the basis of preoperative evaluation in the limited material available within a single institution. Further refinement of clinical staging would appear to require the pooling of data from multiple sources. Such a study would tend to reflect the true population incidence of the various characteristics more accurately by diluting the selection factors peculiar to each institution. Larger numbers of cases also would facilitate the separate evaluation of each parameter of the clinical classification scheme.

The overall accuracy of the clinical evaluation was satisfactory except in the instance of intrathoracic lymph node involvement. This problem is not unique to this region and is commonly encountered in evaluating tumors elsewhere in the body. Direct radiographic visualization of lymph nodes by lymphography has been found to be of value in pelvic and retroperitoneal tumors and also may have applicability in breast, head or neck tumors. However, the technique as currently utilized and conceived is not now applicable to the evaluation of the mediastinal lymphatic system.[16] Costal intraosseous venography[17] and intravenous angiocardiography[7, 8] have been found useful, but are limited by their dependence upon secondary deformities of mediastinal vessels by enlarged lymph nodes.

During the period encompassed by this study, the definitive therapy of the disease was surgical resection. Orthovoltage radiation and chemotherapy with nitrogen mustard were utilized for palliation. The survival data manifest the favorable selection, dictated by these therapeutic limitations, of those lesions which are least extensive and most amenable to complete surgical ablation.

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A research project to examine the effects of marihuana on thinking and perception will be studied at the Langley Porter Neuropsychiatric Institute in San Francisco. Dr. Reese T. Jones, who is directing the project, says the research should result in a better understanding of the effects of marihuana on the human body. His group will also use the drug as a research tool to learn more about naturally occurring psychosis. Although the effects of marihuana on a person's outward behavior are well known, there has been little systematic study of how it alters the ability to think, concentrate and perceive things, according to Dr. Yolles, Director of The National Institutes of Health.

There have been no specific studies, either, of how personality factors, expectations, and past experience with marihuana influence a person's reactions to the drug.

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Evaluation of the Rapid Plasma Reagin Card Test (RPRCT) for Serodiagnosis of Syphilis

Although the Venereal Disease Research Laboratory Test is considered to be the acceptable method for serological screening for syphilis, this comparative study was made to evaluate the Rapid Plasma Reagin Card Test. The results reveal advantages of the latter method. The authors are from Deaconess Hospital.

Of the several serological screening tests for syphilis, the qualitative Venereal Disease Research Laboratory Test (VDRL) continues to be the accepted method of choice in the great majority of states. In spite of its popularity, the method has disadvantages necessitating a venipuncture to obtain the specimen, a heat inactivation period of 30 minutes, antigen dilution and microscopic visualization of clumping.

The Rapid Plasma Reagin Card Test (RPRCT) overcomes some of these disadvantages, is simple and inexpensive and would appear to be more useful as a serological screening procedure. Only a finger stick is required to obtain the blood. The heat inactivation period and antigen preparation are not required and the visualization of the clumping of the charcoal particles is done without the use of a microscope. In order to evaluate its sensitivity and specificity, the RPRCT was performed on 1,200 sera and the results were compared with those of the VDRL. All reactive and minimally reactive tests were then confirmed with the Fluorescent Treponemal Antibody Absorption Test.

Materials and Method

Unheated sera from 1,200 consecutive patients were tested with the RPRCT Kit* using the procedure described by Portnoy.[1] Serum is mixed on a card with a suspension of specially-prepared RPR antigen charcoal particles. After the mixture is rotated for eight minutes, the resulting macroscopic coagglutination is read immediately and regarded as reactive, minimally reactive or nonreactive. The VDRL was performed according to the United States Public Health Service Standard procedures[2] and the FTA-ABS by the method of Hunter.[3]

Results

Table 1 shows that the RPRCT is at least as specific as VDRL and more sensitive. Of the 1,200 samples tested, 51 (4.2%) were reactive (including weakly reactive) to either the RPRCT and/or VDRL. In the 22 samples on which the three tests agreed, the RPRCT had far fewer weakly reactive samples than the VDRL.

Both the RPRCT and the VDRL were considered falsely positive (negative confirmation with FTA-ABS) in 17 cases (33%) and were usually interpreted as being weakly reactive in both tests. Since FTA-ABS testing was not performed on all samples, the incidence of false negative results cannot be obtained completely. There were, however, four instances in which the VDRL was negative and both the RPRCT and FTA-ABS were positive.

Summary

The Rapid Plasma Reagin Card Test (RPRCT) appears to be at least as specific as

(Continued on page 40)

TABLE 1

No. of Test	*RPRCT* WR	R	*VDRL* WR	R	*FTA-ABS* WR	R
22	3	19	15	7	0	22
9	5	4	6	3	0	0
8	8	0	0	0	0	0
8	0	0	8	0	0	0
4	4	0	0	0	0	4
—	—	—	—	—	—	—
Total: 51	20	23	29	10	0	26

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* Hynson, Westcott & Dunning Inc., Baltimore, Md.

Special X-ray Exhibit

Inflammatory Colon Stenoses

M. WENDELL DIETZ, M.D., *Springfield*[*]

STATISTICALLY, ULCERATIVE COLITIS and sigmoid diverticulitis are paramount causes of bowel stenosis. In the investigation of these stenoses, recognition of the underlying abnormality ordinarily is facilitated by conspicuous chronic "burnt out" manifestations in colitis and by obvious diverticulosis in sigmoid diverticulitis. To differentiate a benign from a malignant stricture, however, is the diagnostic challenge.

Typically benign strictures do occur uncommonly in ulcerative colitis (Fig. 1). More often, a stenotic lesion must be considered malignant until proved otherwise (Figs. 2 & 3). Inflammatory changes of diverticulitis may precisely mimic carcinoma (Fig. 6). Of greater import is the contingency wherein diverticulitis obscures a coexisting neoplasm. Unfortunately, the propensity for malignancy in chronic ulcerative colitis coincides with the stage most likely to produce benign stricturing. Likewise, carcinoma predisposes the same age group and the same bowel segment vulnerable to sigmoid diverticulitis. Clinical and laboratory features of these three diseases are frequently of little assistance in clarifying the differential diagnosis.

To emphasize the potentiality for error in the roentgen diagnosis of these entities, a collection of three varieties of stenosis studied in chronic ulcerative colitis are illustrated in conjunction with three types of stenosis in probable diverticulitis without diverticulosis.

ULCERATIVE COLITIS SERIES

Case #1. Benign Stricture

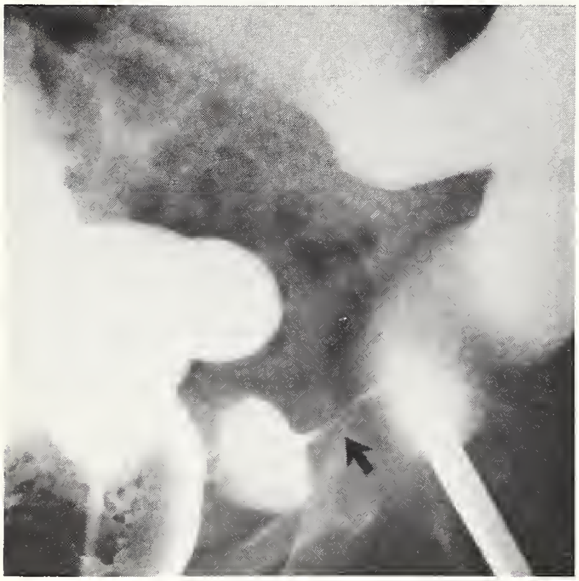

Fig. 1 Routine examination of a 63-year-old woman during a lengthy remission of chronic "burnt out" ulcerative colitis disclosed a filiform narrowing with some antegrade obstruction. Comparison with prior x-ray studies indicated that this sigmoid stricture had remained unchanged during a ten-year interval. The concentric lumen and smooth contours favor benignity.

Case #2. Carcinomatous Stricture

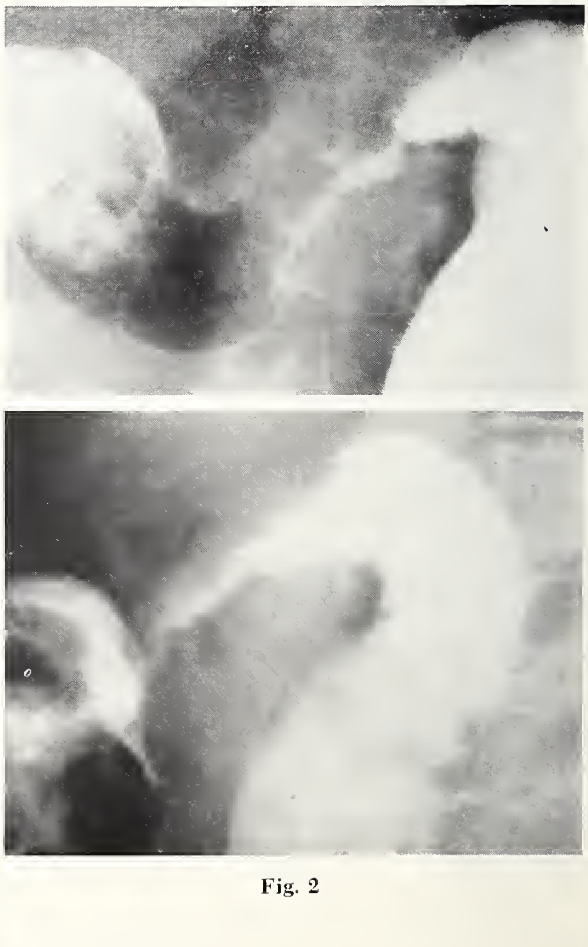

Fig. 2

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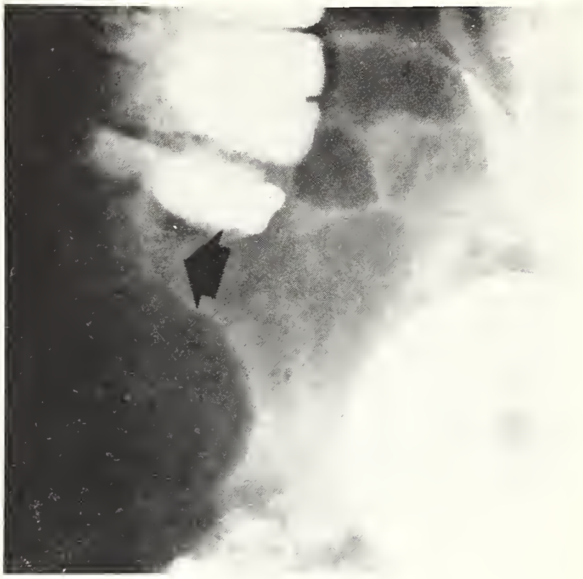
[*] Doctor Dietz is Director, Department of Diagnostic Radiology, Burge-Protestant Hospital and Clinical Associate Professor of Radiology, University of Missouri School of Medicine.

Fig. 2 Varying projections (*top and bottom*) from a reexamination of a 78-year-old man hospitalized for exacerbation of colitis with weight loss after a long remission revealed the following signs roentgenologically suggestive of a malignant stenosis: markedly irregular margins with nodular defects in the constricted area; rigid, tapered extremities; distal transverse colon involvement with dilatation of proximal bowel.

→

Fig. 3 Preoperatively, an erroneous (albeit justifiable) diagnosis of a malignant stricture was based on a persistent annular narrowing located opposite the ileocecal valve and preventing barium opacification of the cecum. The patient was a 66-year-old man with diffuse colon involvement known for more than a decade. Laparotomy revealed an encircling, walled-off abscess which was secondary to perforative ulcerative colitis.

Case #3. Pericolic Abscess



Diverticulitis Series

Each of the following three patients was hospitalized with a classic (?) clinical syndrome of sigmoid diverticulitis. (Such non-radiologic diagnostic generalizations warrants skepticism. Altered bowel habits, bleeding, anemia and weight loss reputedly favor neoplasm. Pain, fever and leukocytosis presumably imply inflammatory disease. Several analyses indicate practically identical signs and symptoms in these conditions, however. Furthermore, such factors are valueless in the sizable percentage of patients with coexistent cancer and neoplasm.)

Do the nonspecific stenoses of Cases #4 and #5 represent constrictive diverticulitis *without* diverticulosis?

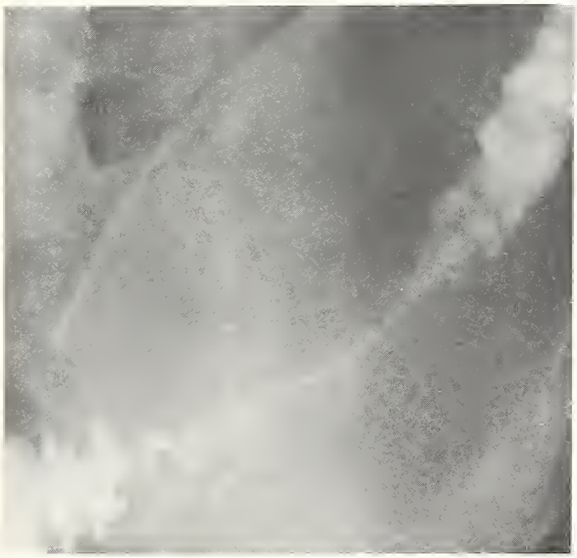


Fig. 4 Case #4. Correct. Prompt subsidence of clinical and roentgen manifestations of *diverticulitis* was observed during medical management. Several diverticula were demonstrable on a recheck study.

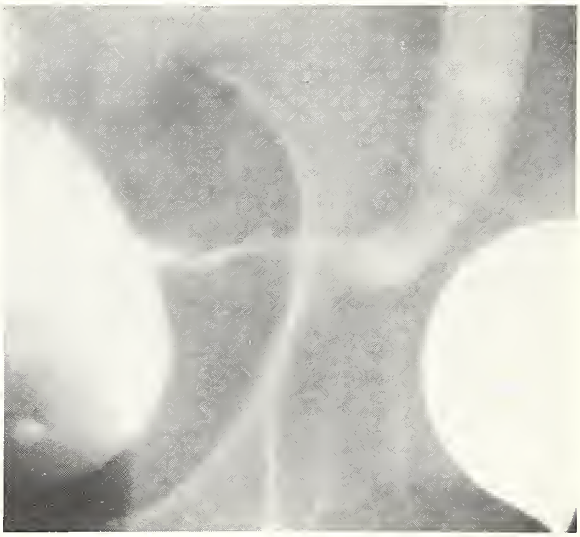


Fig. 5 Case #5. Wrong. An exploratory laparotomy revealed that the stenosis was secondary to extrinsic compression by an *intrapelvic abscess* of indeterminate origin. The colon was intrinsically negative.

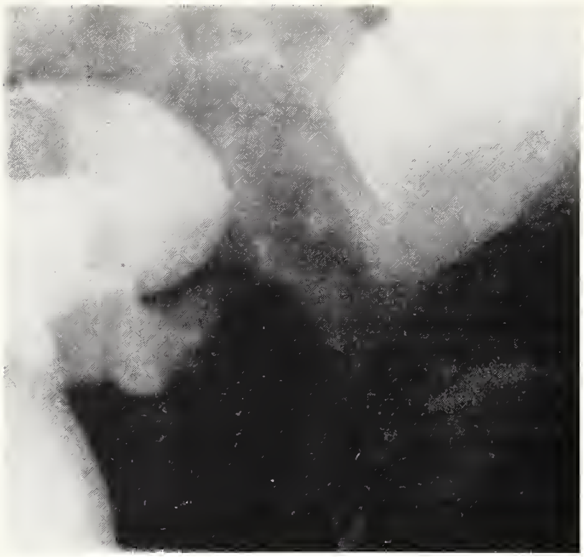


Fig. 6 Case #6. Notwithstanding impressive clinical premises of diverticulitis (despite absence of diverticulosis), this lesion was considered roentgenologically to be a stenosing carcinoma. Resection revealed constrictive, ulcerating *diverticulitis* and two regional diverticula.

Diverticulitis without diverticulosis. These three cases of a constrictive stage of focal sigmoiditis were selected to illustrate several facets of diverticular disease in the absence of diverticula. Recent publications challenge current concepts of this ubiquitous entity as follows:

Fleischer's "spastic colon diverticulosis" articles postulate passive herniations between muscle grooves of a spastic colon. Williams' "diverticular disease without diverticula" pattern may result from failure of the colon to elongate. Herbert has described "dynamic or disappearing diverticula."

Demonstration of diverticula is frequently capricious. Carefully performed colon studies may reveal a sparse diverticulum population in contrast to that observed in subsequent delayed films after either oral or rectal barium administration. Also, failure of redemonstration of known diverticula during follow-up studies is far from unusual. Such circumstances are ordinarily attributed to occlusion (with or without diverticulitis) or reduction of mucosal hernias through the colon wall.

Additional ambiguities include (a) the case of the colon segment resected for diverticulitis which is free of inflammation as well as (b) the absence of even diverticulosis in specimens obtained during clinically successful resection for diverticulitis.

Rapid Plasma Reagin Card Test

(Continued from page 37)

and more sensitive than the VDRL. This, along with the advantages in blood collection, shorter test time and minimum of necessary equipment and expense makes the RPRCT more advantageous than the VDRL as a serological screening test for syphillis.

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The University of Missouri-Columbia Graduate Program in Health Services Management has been approved for membership in the Association of University Programs in Hospital Administration. At the same time, the program was accredited by the Accrediting Commission on Graduate Education in Hospital Administration.

Missouri's program is a joint interdisciplinary program between the Schools of Medicine and Business and Public Administration. It is unique in offering the student the option of pursuing master's degrees in public health (MSPH), business administration (MBA) or public administration (MSPA). Two years of academic work and a summer externship are required. Dr. Thomas P. Weil heads the program, which is located on the University's Columbia campus.

This is the 22nd program to be approved by AUPHA and accredited by the Commission.

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Community Psychiatry as a Part of the Psychiatric Residency Program

Recognizing that all residency programs have their individual qualities which distinguish them from each other, it seems appropriate, first of all, to give the Kansas City program a label which helps to identify it. Our basic residency training may be placed in the category of those which emphasize the patient and his significant environment.[1] Such a label points out the position of this program along with others sharing similarities. All programs have individual or, perhaps, unique qualities. In the case of the program at the mental health center in Kansas City, the distinguishing characteristics are derived from the setting in which the program is located. The setting provides opportunity for experiences for trainees which are not always formalized with exactness into the curriculum.

The setting is an unusual arrangement of several facilities, under public and private sponsorship, welded into one functional unit for the purpose of providing treatment services. In addition to the clinical program, the center also sponsors programs which seek innovative measures for therapeutic intervention and, hopefully, for the eventual prevention of mental illness. A major effort is made to coordinate the center's work with other agencies to form a community network of programs. Since December, 1967, we have had the beginning of a program with an epidemiological focus to add another facet of comprehensiveness.

The institution grew out of an expression of community need. In 1949, the Kansas City area had very little in the way of organized mental health services. Only nine professional persons were engaged in the private practice of psychiatry. The public hospital, which was racially segregated into two sections, housed mentally-ill patients in improvised space and had inadequate staff to respond to their needs. One quasi-public service was a small child guidance clinic operated under the auspices of the Community Chest. This explains a frequently-used appellation for the area at that time—the psychiatric desert between Topeka and St. Louis.

In an effort to commandeer the available knowledge of the region, some interested citizens with access to private funds obtained consultation from qualified and experienced professionals in the mental health field. To bring the needs to public attention and to gain support, a "mayor's committee on mental health" was organized. From this grew a voluntary, not-for-profit corporation, the Greater Kansas City Mental Health Foundation.[2]

With "to conduct education and training" as one of the articles of agreement, the Mental Health Foundation was incorporated by official court order on June 8, 1950. The Foundation first undertook to contract with the municipality to provide professional services on a cost basis to persons admitted through the public hospital system. As staff was employed to work with those adults who were on wards in General Hospital No. 1 for Caucasians and General Hospital No. 2 for Negroes, the Foundation set about to erect a new facility to house treatment services for all of the patients.

The next effort was the establishment of services for certain school children and their teachers in October, 1951. During this period, steps were taken which brought about agreement and the merger of the child guidance clinic with the other programs to be developed under the one "umbrella" which presently exists as a mental health center.

By January, 1952, the Foundation's minutes report progress on the establishment of residency training in psychiatry to begin in the summer of that year.

During the period of construction of the new facility to be called Psychiatric Receiving Center, a variety of activities were undertaken. A psychiatric unit was started at the Children's Mercy Hospital.

Other activities engaged in while the Psychiatric Receiving Center was being built included in-service training for teachers, a course entitled "Education for Marriage," and a seminar for ministers. A professional group therapy program was provided at a neighborhood house, the Mattie Rhodes Center.

By April, 1954, the new building was ready for occupancy for in-patients on a racially-integrated basis, the first such hospital experience for Kansas City.

In the year of 1955, when a three-year residency program had been fully accredited, the report of the director read as follows:

"Patient activities, both indoors and outdoors, contribute to maintaining hope for recovery and for return to the community, and help to diminish the boredom which too often adversely affects patients' behavior in a psychiatric institution. Nor is therapy limited to the environs of the hospital. The relatives of our patients are important both in the patient's illness and in his recovery; with some staff help, relatives may assist materially in the patient's recovery and in maintaining his more adequate adjustment after discharge. Similarly, community resources are utilized. . . ."[3]

The 1955 report set forth plans to tackle the shortage of personnel by proposing a major concentration on improving and expanding training programs in all mental health disciplines. We quote again from the first director: "We hope that in the diversity of our activities, we possess a potential of a unique training experience."[4]

In August, 1955, the Foundation's Board established a fund to help residents to "participate in the social, cultural and scientific life of the community," to attend conferences and so on. By 1957, funds for residency stipends were made available through grants from the National Institute of Mental Health.[5]

These references to early activities are made to show the kind of setting we have had from the beginning, one in which there was an open door to organizations of the community to do volunteer service and one in which there was the basic assumption that the patient's family and the institutions and agencies of the community which affected his life had a distinct role to play in his restoration to that community.

The involvement of helping agencies and organizations in the planning period during the early 50's and the inclusion of their representatives on the board of the Foundation was a process equivalent to present day planning for community mental health centers. The major initial program—that of providing adequate hospital facilities for the mentally ill—was fully underway with 70 beds by the spring of 1954, and outpatient services were open in 1955. An after-care program began in 1958 and an adult day hospital got underway in the latter part of 1959. The original screening clinic was organized that year, also. As these modalities were planned and opened, resident physicians participated along with the staff. As the direct services were being expanded, the Foundation also organized a department of research. Consultation services were undertaken for county-operated juvenile institutions, a sheltered workshop, a family agency in a nearby community, two residential treatment homes for children, a guidance clinic and a rehabilitation center. A training course for police recruits was set up to help them with practical aspects of understanding and relating to mentally ill people.

A department of training was brought into being to coordinate the programs for residents in psychiatry, psychology interns, social work students in their second year of field placement, student nurses, professional visitors from other centers, general practitioners, parole officers, school social workers and, our latest, the indigenous personnel attached to poverty program neighborhood centers.

In the 1960's the Director of the Division of Mental Diseases for the state of Missouri conceived a plan now in effect to establish three centers across the state to provide intensive psychiatric services primarily to the indigent patients of the state. A center has been established in St. Louis to service the eastern part of the state. It is the Malcolm Bliss Mental Health Center, which is affiliated with the psychiatric program of Washington University. A second center in Columbia, which is attached to the Department of Psychiatry of the University of Missouri School of Medicine, was begun to service the middle sector of the state. The third is in Kansas City, is available to residents on the western side of Missouri and is located adjacent to and connected by overhead bridge with the Psychiatric Receiving Center. Named Western Missouri Mental Health Center, it became a part of the complex which is now referred to locally as the "mental health center." The state and local programs are operated as a single unit with patients admitted who reside within Kansas City or in any of 31 counties in the western third of Missouri. The academic medical program is under the auspices of the University of Missouri School of Medicine's Department of Psychiatry, with this as the Kansas City division. It is, also, the Department of Psychiatry of Kansas City General Hospital and Medical Center.

The facilities of the Center consist of an admissions or screening area, which also serves as a 24-hour emergency service, a walk-in clinic and a holding area where patients may remain under observation for as long as 48 hours without the necessity of admission to the inpatient service. There are 104 inpatient beds for adults, 36 beds for children and adolescents, 60 adult day center slots, a capacity of 20 for children in a day program and an 18-bed alcoholic unit. There are outpatient services for adults and children, both group and individual, as well as some family therapy. The After-Care program encompasses clinic sessions in the center facilities and, also, at several outpost locations in the catchment area. A large diagnostie and consultative program for schools in Jackson County is undertaken by another unit, the Institute for Pupil Study, which is financed under Title III, Elementary and Secondary Education Act, by contract with local school districts.

The research arm, which has as its major function the ongoing evaluation of effectiveness and outcomes of service delivery, is being reorganized. As one of the approaches, an experimental ward will be opened in July, 1969, to view and explore in an evaluative manner those problems which are experienced in the varied services.

For some time, as this historical review shows, the Kansas City programs have been comprehensive within the spirit of current community mental health center requirements. Continuity of care formerly had been provided by an easy transfer of patients from service to service without any receiving service having the privilege of vetoing the decision made by the referring service. Even with those precautionary measures to assure continuity, some patients "fell between the cracks" of services. Because of this, about a year and a half ago, the center redeployed its treatment personnel into differently designed teams for the delivery of adult services. Each team consists of a psychiatrist as leader, a staff psychologist, a social worker, a clinical casework assistant and a nurse. Trainees assigned to a team consist routinely of a first year resident in psychiatry, a psychology intern, social work student and frequently, a medical student. There are six of these teams which are responsible for a full day of admission screening. Any person seen and offered service on the team's "day" becomes the responsibility of the team for the remainder of that patient's treatment career within the center. The six teams share the use of three wards, with two teams for each ward. A patient may move progressively as his condition changes from the admission area to any appropriate service, to Inpatient, to Day Center, to Outpatient, After-Care, etc., with treatment maintained by the same team. The only exception in the responsibility for patients is in the Day Center where liaison contact between Day Center staff and the treatment team is maintained through team nurses.

A description of the residency program of the mental health center in Kansas City which emphasizes a basic foundation of psychiatry, viewing the patient with his significant environment. Since the inception of this program, there has been an open relationship with the community, and aspects of "community psychiatry" are derived from the unique qualities of this training center. It is stated that more specialized community psychiatric techniques require additional education. The authors are from the Greater Kansas City Mental Health Foundation and the University of Missouri School of Medicine, Department of Psychiatry, Kansas City Division, where Dr. Wilkinson is Acting Executive Director of the Foundation and Professor and Chairman of the Department. Mrs. Johnson is Demonstration Officer for the Foundation. This paper was presented originally before the Inter-University Forum for Educators in Community Psychiatry at the University of Chicago Division of Continuing Education in April, 1968.

In each of the areas where patients are served, there is a management staff which is responsible for the ongoing activity of the area and which has to work in close conjunction with the team staff in order to carry out the team's recommendations for the patient. Thus, there is management staff in each of the inpatient wards, the Day Center, the admissions or screening area and the outpatient clinic. The management staff also serves as back-up staff for the teams.

It is important to note that inpatient hospitalization is a period of intensive care with a focus on the immediate interruption of the maladaptive behavior and on restoration of social functioning. The inpatient stay averages about three weeks, and no formalized psychotherapeutic approach is initiated at this point.

Now, we present a description of the Department of Psychiatry. It offers an approved, regular three-year residency program as well as a five-year career program in which the second and third years are spent in a state hospital. There also is a four-year child psychiatry program approved by both the American Board of Psychiatry and Neurology and the American Association of Psychiatric Clinics for Children.

The first-year resident in the regular program is assigned for two consecutive, three-month periods to two different teams. Then he spends three months in a nearby state hospital to gain experience with chronic hospitalized patients. The final three months are spent in the neurology service of the Kansas City General Hospital and Medical Center.

Throughout the period of the residency, there is experience with other disciplines such as fellow team members and persons with managerial responsibilities for certain treatment areas and units. There are courses taught by the psychology staff. Especially in areas of group therapy and family therapy, there is interdisciplinary teaching and supervision.

The resident receives supervision for his work in the screening admissions area and for his work as a member of an inpatient team. He also is involved in the following curriculum: General Orientation, Psychiatric History, Psychiatric Syndromes, Psychological Testing, Basic Neurology and Neuropathology, Social Psychiatry and Ward Management, Introduction to Group Therapy, Introduction to Individual Therapy and Family Therapy Evaluation.

In addition to the basic aspects of psychiatry, the first year resident learns how to function as a member of a team. He also learns how all disciplines in the helping professions cooperate in returning the patient to his hoped-for improved setting. Since community psychiatry also can be defined as an extension of the therapeutic milieu of the hospital, the resident is learning concurrently some of the important rudiments of community psychiatry.

In his second year, the resident is assigned to a team for 12 months, and he functions as the principal outpatient arm of the team. For his team, he concerns himself almost entirely with evaluation of patients on "screening day" and with consultation requests from the General Hospital. In addition, he carries from eight to ten patients in individual therapy, works as co-therapist in two treatment groups and has at least one family in treatment. There is supervision for each of these therapeutic efforts.

Principally, the patients the resident sees in outpatient therapy are obtained from his evaluations on his team's particular days for screening. However, his individual caseload is overseen in order to insure a diversity of cases. Supervision includes a minimum of one hour per week for screening evaluation, two hours per week for individual therapy and one hour each for each group and each family. Supervision is provided by both staff of the center and visiting staff who have faculty rank.

The didactic offerings for the second year are psychoanalytic or psychoanalytically-oriented and are handled principally by the Psychoanalytic Study Group. The latter is an incorporated group of Kansas City analysts affiliated with the Topeka Psychoanalytic Institute. Included in this seminar series are these topics: "Psychoanalytic Theory," "Growth and Development," "Dynamics of Syndromes," "Techniques of Psychotherapy," "Continuous Case Seminar and Therapy Seminar."

In addition, with members of other disciplines, the second year resident is a participating member of a sensitivity group conducted once weekly. It is led by a staff augmented by consultation from the Midwest Group for Human Resources, an affiliate of NTL Training Laboratories.

From this second year's experiences, the resident is expected to have gained increasing familiarity with several aspects of individual, group and family therapy, as well as with the providing of consultation for other medical specialities. Some second year residents who have shown the aptitude and interest also have an opportunity to be participant-observers along with members of the disciplines other than medicine in consultative programs such as those involved in community-based agency services.

It is the feeling of our faculty that a sound and, perhaps, even a "traditional," if we dare use the term, didactic curriculum based upon analytic theory and some degree of expertise in the one-to-one clinical approach is a basic part of the foundation upon which the resident may build the added skills of understanding and working with people in groups and in their interrelationships with others.

During the third year, a six-month period is spent in the children's services where a clinical team approach is used. The traditional child psychiatric team of psychiatrists, psychologist and psychiatric social worker is used. In addition, however, the inpatient and day care programs include nursing personnel, educators and activity therapists as vital team members as well. The trainee functions as a member of one of the clinical teams. For the three-year resident, the purpose of this experience is to enable him to become familiar with the diagnosis and brief therapy of children, principally in an outpatient setting. Also, some time is spent serving as co-therapist in a group of children or adolescents. A seminar on "Psychotherapy of Children" is conducted by a member of the Psychoanalytic Study Group, and a conference on the "General Aspects of Child Psychiatry" is conducted during this year. In the future, those residents who have not worked with normal children will be assigned for a short period to a children's nursery.

The remainder of the third year permits the selection of one or two electives. The electives available are as follows:

Alcohol Service—A rehabilitation program for chronic alcoholics. The resident may be placed in charge of program under the leadership and supervision of the director.

Team Leader—The resident takes over the leadership of a team, under the supervision of a staff psychiatrist.

Extension of Time in Outpatient Clinic—A maximum of three months may be added to the time spent in the adult or children's outpatient service for continuing psycho-therapeutic experience.

Further experience is possible in the children's service also. The following became available beginning in July, 1968:

Consultative Work with Agencies—The Center has several consultative relationships with agencies in the catchment area where staff persons currently are functioning. These agencies include a Women's Job Corps, a public welfare suboffice based at a public housing project and Neighborhood Centers under OEO. The consultative functions in which we are currently involved also have been preparatory for the introduction of trainees.

Forensic Psychiatry—The Center presently screens prisoners in the county jail, does pretrial evaluations for the Circuit Court and gives testimony for commitment purposes in the Probate Court. Other activities in the Forensic Section include treatment groups for parolees and consultation to state parole officers.

Community Clinics—Two satellite clinics with two-day sessions each week will be established within a 15-mile radius of the center. These will be staffed by a psychiatrist, social worker and psychologist. Trainees from each discipline will be placed in these clinics. The functions of the clinics will include both client-centered and indirect service activity.

Additional curriculum activities can include seminars on "Systems of Psychotherapy," "Advanced Family Therapy Seminar," etc. Choice of a seminar will result from mutual selection made on the part of the senior resident and staff.

In the final year, the resident is provided with training that rounds out the necessities of required psychiatric training. In addition, he has the choice of training activities in which he assumes more responsibility.

During the entire period of their residency, the psychiatry trainees, as well as trainees from the other disciplines, participate in the General Staff Conference which is a part of the inservice training for all staff members of the center. These weekly one-hour sessions, which are frequently followed by smaller seminar groups, include presentations from well-known visiting authorities, as well as local talent, on a variety of subjects. A special effort is made to include in this series a discussion of current social problems and the techniques and approaches being used to cope with such problems by other professions and by other kinds of organizations and institutions. Reports of current research and demonstration programs also are included in order to help keep staff and trainees abreast of developments in the broad behavioral field.

The psychiatric residency program, then, in addition to providing the basic material necessary for the learning of psychiatry, places the trainee in a setting in which, as he utilizes his knowledge and skills, he is in a milieu which is an extension of the community. Because of the operating philosophy at the site of residents' training, the patient viewed with his significant environment is the constant and prevailing factor as the resident applies his learning. At every opportunity, he, through his work and with the help of the faculty, becomes more and more aware of the interrelationship of environmental forces with emotional illness. Whenever possible, these forces and these relationships are identified and attempts are made to alter them. These aspects of community psychiatry can be taught and can be experienced within the regular residency program as an expansion of the acquisition of basic psychiatric material. However, it is

(Continued on page 50)

ALFRED S. KETCHAM, M.D., ***Bethesda, Md.***

Surgery in the Role of Treatment of Advanced Oral Pharyngeal Cancer

In few regions of the human anatomy is there as much confusion and conflicting information regarding proper management of tumors as in the head and neck area. A number of causes contribute to this confusion. First, the anatomy of the head and neck is complex. Identifying the actual site from which a cancer arises or realizing the extent to which a cancer has extended to adjacent, poorly-visualized anatomical areas is often difficult. In addition, the embryologic development is from all three germinal layers; hence, neoplasms may arise from ectoderm, endoderm and mesoderm. Also, the complexities of development may result in vestigial remnants from which bizarre neoplasms may arise. Most important, perhaps, is the fact that these neoplasms are relatively infrequent. With treatment, the surgical failures came to the attention of radiotherapists, while the radiation failures as well as the radiation complications find their way to the surgeons' doorstep. Lastly, indicated treatment is still delayed because of a natural reluctance for many physicians to recommend treatment which may result in the loss of an eye, larynx or mandible, no matter how necessary the operation. It is quite fair to say, however, that for many lesions there is no method of treatment that can be proved unequivocally best. Nevertheless, there are specific criteria which make some patients surgical candidates rather than candidates for radiation therapy. The selection of type of treatment often depends upon many variables, none of which is subject to precise measurement and many of which are quite subjective. Hence, wide experience is especially important in this area of oncology.

General Conditions

Generally speaking, the older, more debilitated and less vigorous the patient, the stronger the indication is for surgery. This sounds paradoxical since many people, especially the laity with even some physicians, consider surgery as "radical treatment" and radiation therapy as "conservative treatment." A tumoricidal dose of radiation, either by external beam or volume implant, can be associated with profound physiologic effects locally and systemically. The injury applied is chronic and the sequelae may last for much longer periods of time than the four to six weeks of actual treatment time. The edema and resultant mucositis about a bulky tumor (either oral, pharyngeal or laryngeal) may cause actual progression of difficulty with alimentation and ventilation. Aspiration and bronchopneumonia are constant threats, as is negative nitrogen balance resulting in protein depletion. Apathy and depression are common. Radiation therapy, then, may be quite stressful to the aged. On the other hand, even a massive head and neck operation is usually well tolerated in the elderly. Since muscle relaxation is not necessary, depth of anesthesia during surgery is light and postoperative interference with respiration is very slight. Thus, pulmonary complications, the nemesis of abdominal operations, are infrequent. Postoperative pain is quite minimal. As a matter of fact, on our service, postoperative sedation is not given routinely nor required in most head and neck patients. This, of course, helps to eliminate respiratory depression and, also, serves to reduce pulmonary complications. The acute insult of surgery usually is over within a very few days. With present day techniques, elderly patients can be very satisfactorily supported through this brief period. Rehabilitation thus begins early, often on the very evening following surgery. As a matter of fact, the general condition of an aged or debilitated patient may be strikingly better immediately postoperatively through better ventilation via tracheotomy, improved alimentation by esophagostomy tube feedings and, above all, through the prompt removal of a large, bleeding, malodorous necrotic tumor mass. This is a real and vital phenomenon, and a sizable group of patients fall into this category.

The patient with oral cavity cancer who has abused his mucous membranes with years of alcoholism, snuff, tobacco, dental inattention or oral sepisis may have a diffusely diseased epithelial surface and is a good candidate for the development of multiple primary cancers. The treatment of the initial lesion by radiation therapy severely limits and handicaps subsequent care of additional lesions. Fortunately, many lesions that arise in this type of diffuse "field change" are low grade and can be handled surgically with minimal excision. When we are faced with the large ulcerative or fungating lesion, recurrence following excision is as often due to the development of a new primary as it is to having had inadequate margins on the original specimen. Surgical excision, then, may have to encompass a good amount of precancerous mucosa, making closure and reconstruction difficult. Seldom do we remove an advanced cancer of the oral pharyngeal mucosa without preoperatively having taken multiple, sometimes blind, biopsies of selected areas of mucosa. At the time of the operation, it is mandatory in our experience to have the cooperative understanding of the frozen section pathologists. No longer do we routinely ask for frozen sections from the specimen to determine adequate margins. An additional encompassing margin of what hopefully appears as normal tissue is taken from the wound edges including all boundaries left by the tumor resection. This sometimes requires the pathologists to freeze and examine ten to 15 sections, a task which he does not take lightly unless it becomes a routine or you have a good understanding with him preoperatively.

PHYSICAL CHARACTERISTICS

The physical form of the presenting tumor should influence the choice of therapy. The smaller exophytic lesion usually is quite responsive to radiation. Size, also, is important. The tumor is likely to contain areas in the center of huge necrotic tumor is likely to contain areas in the center of the mass that are relatively avascular and, hence, hypoxic. These cells can be expected to be much less sensitive to irradiation and will serve as a nidus for continued growth. There are certain tumors that occur in "silent areas" and, hence, may grow to large size before diagnosis is made. Lesions of the sinuses and pharyngeal walls, especially pyriform sinus, are good examples of this process. Since these lesions are usually seen late, they may be large and extend to adjacent areas. It is unfair to expect radiation therapy to totally eradicate this type of tumor. The same may be said of certain tonsillar and base-of-tongue lesions. Results suggest that the larger and more avascular the tumor, the better the indication for surgical therapy. By the same token, the smaller lesions often can be locally excised with ease and the patient can be back to work before radiation therapy could even be completed.

This is the fourth and final article in a series from the proceedings of the Professional Program of Ellis Fischel State Cancer Hospital and Cancer Research Center which was held in May, 1967.

Dr. Ketcham is Chief of the Surgery Branch, National Cancer Institute, The National Institutes of Health. Participating in the Program with Dr. Ketcham were Drs. Robert H. Johnson, Jr., Paul B. Chretien and Joseph C. Farmer, Jr., who also are from the Surgery Branch, National Cancer Institute.

The histological type of a tumor obviously is of great importance in selection of therapy. The soft tissue sarcomas, as a group, are basically surgical lesions, although there may be a role for preoperative irradiation especially with the rhabdosarcomas. Melanomas are certainly surgical lesions despite some reports in which the laser is utilized. Most bone tumors, although poorly treated by any means, are surgical lesions. All forms of salivary gland tumors of either major or minor origin, regardless of location, should be treated surgically as should most adenocarcinomas of the head and neck area. Radiation therapy, then, may be severely limited by tissue sensitivity. It may be that the less well-differentiated squamous carcinomas may be better treated with radiation therapy, not because of any innate responsiveness but, rather, because tumor cell dissemination at the time of surgical operation is a real hazard. With this type of tumor, it may well be that preoperative irradiation will be quite useful. Many controlled protocol studies are underway in an attempt to lessen the prevalence of what is one of the greatest problems of the cancer surgeon today.

WOUND SEEDING

Extensive animal studies indicate that the topical, regional or systemic use of certain chemical agents or the use of varying schedules of preoperative radiation will lessen the incidence of viable tumor cells which are disseminated from the ulcerative primary tumor growing in the wound. Unfortunately, many of these studies were carried out *in vitro*, i.e., radiation of cell suspensions of tumor which failed to grow when placed back in a freshly prepared wound of an isologous animal. The investigator then thought he had a technique of killing cells or, at least, of lessening their viability so that they failed to develop tumor when reimplanted. The viability of tumor cells *in vitro* can be altered significantly by one of many techniques, including the application of warm urine (animal or human, depending upon the investigator's ingenuity). So, what happens in the test tube is not necessarily applicable to what will happen in the animal. In addition, what happens in the animal will not necessarily be applicable to what will occur in the human. Our attempts at the National Cancer Institute to carry some very encouraging investigative wound seeding findings into the clinic have been quite unproductive thus far. We have reported the failure of formaldehyde wound washing to lessen the incidence of local recurrence. Proflavin hemisulfate, an acrodine dye and an excellent tumoricidal agent in animal tumors, is being tested, but preliminary results are not encouraging. Although this subject is somewhat remote from discussing radical surgery, the results of our most recent evaluation of the wound seeding problem emphasizes the lack of understanding we have of the host mechanisms in controlling cancer. In a consecutive group of 180 patients, all wounds were washed with 500 cc of saline following tumor resection and the aspirate was collected and examined cytologically. Catheter drains were inserted previous to closure and the drainage collected at hourly intervals and examined for cancer cells. Cells were found in the wound drainage at up to five days after surgery, although at a lesser incidence than cells were found in the wound washings. There was no statistical difference in the local recurrence rate of tumor growth in any of the groups, i.e., patients with positive washings or drainage or negative cytological specimens. The fault probably lies in the presently available techniques of cytological analysis, but it does emphasize the complete lack of understanding which we today have of the defense or immunological mechanisms of the human. One interesting and challenging aspect of this study is the fact that when the cytologist reviewed all the slides he had called positive and classified them as to degree of malignancy, three separate cytologists who knew nothing about the patient were able to identify with 88% accuracy which patients would develop local recurrences. Here might lie the only real significant finding in the entire wound seeding study. This group of patients might be the ones who would benefit by postoperative adjuvant therapy.

The role of preoperative radiation therapy in preventing wound recurrence still remains an unanswered problem for one of many reasons. First, how much cancer surgery is the surgeon actually doing and, therefore, how is he evaluating the truly encompassing, en bloc type of resection that is necessary. Is he depending too much upon preoperative radiation or host resistance to take care of his close margins or sloughed viable cancer cells? What type of preoperative radiation is being used? Is it multiple small doses or one or two treatments before surgery and how long before the surgery is it being administered? Is the tumor itself only being radiated or has the entire surgical field been exposed? Our program of using 1,000 to 1,500 rads at a single dose 24 hours before surgery has been a sluggish study and may not yield a valid evaluation. When one deals with patients of whom 71% have been failures to radiation before we see them, it is difficult to accumulate a series of untreated cases of one anatomical area to place in the study. As we now are looking back upon this double blind study in which we, as the surgeons, did not know whether the patient received radiation when we sent him to x-ray the day before surgery, there appears to be little encouragement to continue the investigation.

SITE

The site of origin of a squamous cell cancer is very important in selection of therapy. In general, tumors invading bone or arising close to bone are best treated surgically. This, of course, includes sinus cancer which too often extends to involve the oral cavity. In terms of cure alone, radiation may be effective in certain of these tumors. However, the possible sequela of osteoradio-necrosis, fibrosis and atrophy of mucous membranes overlying bone are certainly undesirable and often troublesome complications. Curative radiation to a hard palate lesion is apt to result in necrosis of bone. A varying degree of adjacent normal mucous membrane also will be necessarily affected by the radiation. As time passes, this tissue may become fibrotic and atrophied. This post-irradiated mucous membrane is increasingly easily traumatized by mastication and, especially, by the usual denture. It is preferable to excise these lesions, including underlying bone, and to repair the defect with a preformed dental obturator. Because of excellent blood supply to this area, prompt healing is the rule. There will be changes in the local mucous membrane from the surgical procedure, to be sure, but diffuse changes are avoided and the results, especially the long-term results, are more satisfactory.

Nodal Metastases

Another factor in selection of modality of treatment is the presence of lymph node metastases. It probably is true that radiation therapy can control the smaller lymph node metastases. Generally speaking, however, it is clear that the vast majority of patients with nodal metastases are best treated surgically. This is not only because the larger and more extensive nodal metastases are not satisfactorily controlled with radiation but, also, because treating the entire lymphatic drainage system of a particular tumor necessitates irradiation of a large volume of normal tissue. It should be remembered that data on the late sequelae of radiation therapy are not complete. After all, the modern era of supervoltage therapy and other sophisticated techniques dates from about 1954. This is important to remember in treatment of the younger patient who, if cured of his cancer, may have 30 to 40 years to live. Radical neck dissection, on the other hand, is a simple operation to perform, rather effective, well tolerated and results in acceptable cosmetic appearance in most individuals. Preoperative irradiation therapy may have a real role as adjunctive therapy, particularly when there is palpable disease in the neck. We strongly recommend that lymph node metastases are best treated surgically. Excision of the primary tumor in continuity with neck dissection is usually indicated when the primary tumor is in continuity with the neck or when there is palpable disease in the neck.

None of us is proud of our results in treating advanced cancer of the head and neck area, but each carries on his day-by-day treatment by that means which has been shown in his hands to give the best salvage. Unfortunately, salvage alone is not the only consideration because we must have not only a live patient, but one whom we can acceptably return to his family or, more importantly, to a wage-earning capacity. Studies in improved results must be fostered by whatever means are available, because we are seeing more and more people with advanced cancer if for no other reason than the increased age to which people are allowed to live without dying of their heart disease, diabetes or chronic lung disease. We do not believe, however, that acceptance of the results of clinical studies or innovations in treatment are justified without a control study for statistical comparison. We are dealing with a disease which has a 100% mortality if untreated and has nearly that if treated by less than conventional means of treatment.

One need not reiterate the published facts that large tongue lesions, encompassing oropharynx growths, bulky hypopharynx cancers and supraglottic primary or extensions of tumor can be cured in 15% to 40% of the instances, depending upon the circumstances. By surgery, the functional results admittedly are sometimes less than desired, but so may they be by radiation. Total glossectomy leaves a patient who talks as well as a patient with an immoble, dry tender irradiated tongue. Add pharyngectomy to this and the problems are compounded but not insurmountable. With the ability to restore functional anatomy by grafting or the use of prostheses, the mandibular, palatile or maxillary contour can be restored.

The reported results of the prospective studies on the use of antibiotics in these patients undergoing aggressive surgery indicate that the use of antibiotics is mandatory. The similarly reported series of patients with wound defects and fistulae which predispose to carotid rupture also indicates that these problems can be safely handled. Since the routine procedure of covering all exposed carotids with muscle or adjacent tissue has been instituted, carotid blowouts are a rare experience.

Cosmetic Results

The surgeon dealing with cancer of the head and neck area always has been faced with the result cosmetic alterations that are often mandatory to total cancer removal. Often there is reluctance to proceed with immediate plastic restoration for fear of covering a defect which, if left exposed, would easily reveal evidence of local recurrence of cancer at a time when it might still be amenable to further treatment. The recent trend toward more immediate plastic restoration may be fully justified in selected patients in which the surgeon uses his experienced judgment in determining the probability of local recurrence. This decision should be made after evaluating the anatomical degree of spread, the frozen section confirmation of free surgical margins and the cell type of the tumor. The strongest argument against immediate reconstruction is the proved fact that, often, while resecting the tumor, the surgeon is at the same time worrying about how he will carry out the reconstruction and, in so doing, may perform less than an en bloc or total encompassing cancer operation. The need for consideration of restoring the mandibular contour is unquestioned, but the need for palate, maxillary, orbital, nasal or facial reconstruction is open to debate in view of the excellent functional and cosmetic results that can be obtained with one of many types of plastic materials. In allowing the patient to return to his family and his community as an acceptable and useful individual, we feel it is mandatory that our surgery be carried out in a cooperative effort with the dental prosthetic laboratory. They are able to fashion all types of acceptable obturators, masks and noses with attention to the complexion of the patient and, even, to affording him more than one prosthesis, each tinted in color to correspond to the season of the year and the complexion of the face.

EXPERIMENTAL THERAPY

With the many innovations in treatment directed at head and neck cancer, the physician easily can become confused over the role of drugs, cryosurgery, chemosurgery or laser in cancer therapy. Each of these modalities is an interesting research tool which, under properly controlled study in the laboratory and then possibly in the clinic, might become a part of our cancer armamentarium. While systemically or regionally administered agents have reportedly caused tumor control or regression and some untreatable lesions possibly have been made operable, this form of therapy is seldom indicated if cure can possibly be offered by other means. The freezing of intra-oral tumors through cryosurgery has shown encouraging results, in selected individuals. The topical application of chemical agents similarly has gained favor in the hands of a few clinicians. The tumor destruction observed in animals through the use of a laser beam has no practical application in man at present. Until more adequate drugs or more extensive laboratory studies are completed, these modes of therapy should be considered only in the patient whose cancer has failed to respond to conventional means of treatment, that being surgery or radiation.

SUMMARY

The surgeon who feels that all head and neck lesions should be removed surgically is as surely wrong as the therapist who feels that all lesions should be treated with radiation. It is often the decision of the referring physician in regard to whom he will refer the patient, however, that dictates the type of therapy. Unfortunately, the decision too often is based not upon the reported results of cure, but upon the fear that the patient will be physically deformed. Let us remember that there are immediate and prolonged, uncomfortable effects of ionizing radiation, many of which cannot be handled by the patient nearly as well as the results of aggressive surgery. Just as often, the therapy is dictated by what is available in the community. While this is a reason for a particular choice of treatment of benign disease, it is not necessarily the best choice for malignant disease. Enough centers are becoming available throughout the country to furnish curative cancer treatment for which results and *not* convenience should dictate the choice.

There are definite indications for surgery or radiation or a combination of both. In our experience, most patients with head and neck tumors are offered the greatest chance of cure through the use of a well-planned and skillfully-executed operation. While experience has prejudiced my recommendations, we must admit that seminars such as this serve as a constant stimulus to reexamine our own way of thinking, to evaluate our results and, especially, to exchange ideas and experience so that each of us can offer to the cancer patient the ultimate opportunity for care.

Community Psychiatry

(Continued from page 45)

our belief that the more specialized and technical aspects of community approaches, such as epidemiology, human ecology and treatment techniques for community forces which may be in confrontation with each other or in juxtaposition, are specialities which require additional education and training, both of which should be an expansion of our regular programs.

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Reprints: Charles B. Wilkinson, M.D.
Greater Kansas City
Mental Health Foundation
600 E. 22nd St.
Kansas City, Mo. 64108

President's Message

Your MSMA again was well represented at the Clinical Session of the AMA in Miami Beach. Everyone worked hard. We are particularly indebted to Dr. Blaine Hibbard of Kansas City and Dr. Hubert Ritter of St. Louis for helping the Delegates, Alternates and Officers cover the various reference committees. Dr. Tom Potter of St. Joseph was sadly missed and will be missed by many of us in the years to come. He was an active, interested and enthusiastic member of our AMA delegation for many years, as well as of the MSMA.

There were many resolutions covering all the facets of medical economics, education and other related subjects. An extensive debate resulted from the action of the Board of Trustees of the AMA in which they combined the AMA Field Service and the AMPAC Field Service. They also announced a management survey, which is being made by an outside group. The consultant firm is supposed to complete a full report before the July AMA Annual Session. The House of Delegates made it crystal-clear that they wanted advance copies of the report in time for study before July. All in all, this amounted to a strong reassertion by the House of Delegates that it is the ruling body of AMA and the Board is subject to its direction. The Blasingame–Board of Trustees crisis was part of this, but no definitive action was taken concerning the Trustees action. We talked to representatives of both sides and decided that the action was the Board's responsibility and, in view of their reorganization concepts, probably was imperative.

David N. Kerr, M.D.

The other item that was the subject of prolonged debate was the osteopathic question, with the hierarchy softening its attitude and giving the state societies a good deal of latitude in their relationships with the DO's.

Forward planning, continuing Medical Education and many other issues were acted upon and will become "food for much thought" by our organization. Some of the subjects will be touched upon at the January meeting of County Society Presidents and Secretaries or may form material for resolutions for MSMA in March, 1969.

So, another year ends for all of us. I hope it was a good one for all of you and that you can relax a bit with your family and friends during the Holidays. There are a lot of tough hurdles ahead—but, for now . . . a Very Happy New Year!

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You might also say that all interns aren't alike, either.

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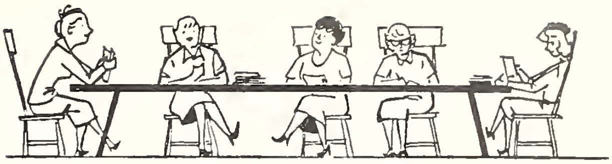

Since Jan. 1, 1962, when The American Medical Association's Education and Research Foundation was established, the doctors' wives of Missouri have been busy supporting money-making projects to raise funds to support the programs of AMA-ERF.

The program includes six projects, but the Woman's Auxiliary seeks funds for only three: (1) Funds for Medical Schools, (2) Loan Guarantee Fund and (3) the Institute for Biomedical Research.

Last year, the Missouri auxiliaries and the members-at-large donated $3,617.65 to Medical Schools, $1,630.00 to the Loan Guarantee Fund and $238.50 to Biomedical Research, a total of $5,486.15. So far this year, contributions have been increasing over the corresponding months of last year and we hope to continue working hard for this fine cause.

We are proud to have the opportunity to support AMA-ERF, whose principal aim is the betterment of public health through scientific and medical research.

Mrs. E. F. Butler, President

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Contraindications: History of sensitivity or severe intolerance to aspirin, meprobamate or ethoheptazine citrate.

Warnings: USE IN PREGNANCY: Safety for use during pregnancy or lactation has not been established; therefore, it should be used in pregnant patients or women of child-bearing age only when the physician judges its use essential to the patient's welfare.

Precautions: Keep out of reach of children. Not recommended for patients 12 years old or less. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate in susceptible persons—as alcoholics, ex-addicts, severe psychoneurotics—has resulted in dependence or habituation. Withdraw gradually after prolonged excessive dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance, with resultant slowed reactions and impaired judgment and coordination. If drowsiness, ataxia or visual disturbances (impairment of accommodation and visual acuity) occur, reduce dose. If symptoms persist, patients should not operate machinery or drive. After meprobamate overdose, prompt sleep, reduction of blood pressure, pulse and respiratory rates to basal levels, and hyperventilation are reported. Give cautiously and in small amounts to patients with suicidal tendencies. Treat attempted suicide (has resulted in coma, shock, vasomotor and respiratory collapse and anuria) with gastric lavage and appropriate symptomatic therapy (CNS stimulants and pressor amines as indicated). Two instances of accidental or intentional significant overdosage with ethoheptazine and aspirin have been reported. These were accompanied by CNS depression (drowsiness and lightheadedness) but resulted in uneventful recovery. On basis of pharmacologic data, CNS stimulation could be anticipated, with nausea, vomiting and salicylate intoxication (requires induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, and observation for hypoprothrombinemic hemorrhage [usually requires whole blood transfusions]).

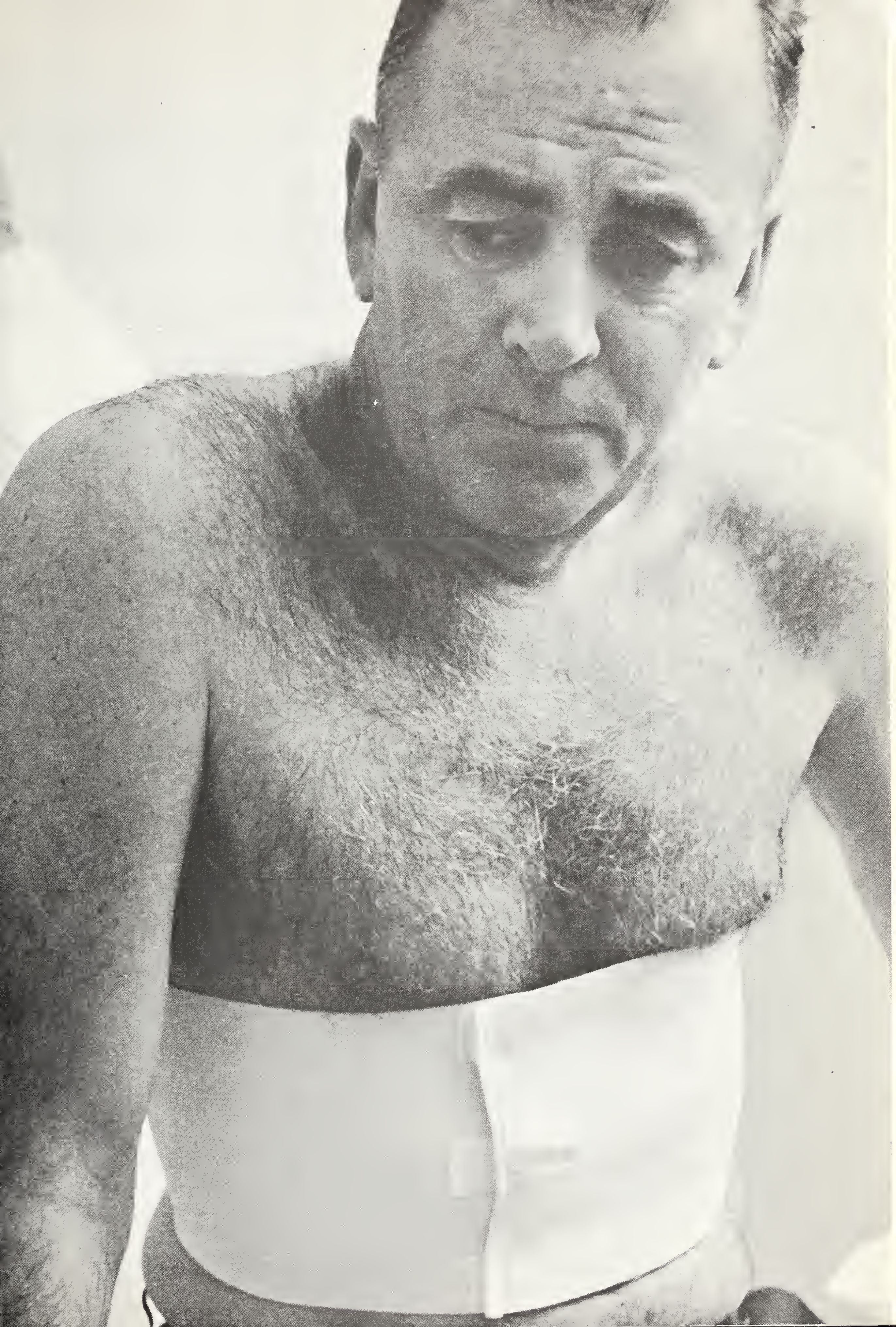
Adverse Reactions: Ethoheptazine and aspirin may cause nausea with or without vomiting and epigastric distress, in a small percentage of patients. Dizziness is rare at recommended dosage. Meprobamate may cause drowsiness, ataxia and rarely allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses. Such patients may have had no previous contact with meprobamate and may or may not have an allergic history. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. If allergic reaction occurs, discontinue meprobamate; do not reinstitute. Severe reactions, observed very rarely, include fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. These cases should be treated symptomatically including, when indicated, such medication as epinephrine, antihistamine and possibly hydrocortisone. A few cases of leukopenia, usually transient, have been reported on continuous use. Rarely, aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported, almost always in presence of known toxic agents.

Overdosage: See precautions section for management of overdosage.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

Wyeth Laboratories Philadelphia, Pa.

Photo professionally posed.



EDITORIALS

MEDICINE'S 'SO-CALLED HIDDEN COSTS'

Max H. Parrott, M.D., a member of the Board of Trustees of the American Medical Association, addressed the recent meeting of the American Association of Medical Assistants on "The 'So-Called Hidden Costs' of Private Medical Practice." Dr. Parrott practices obstetrics and gynecology in Portland, Ore. Part of his remarks are printed here:

The cost of doing medical practice is not "hidden" from the patient. At least not deliberately in most cases. It is just that the patient has not thought about it. After diagnosis and treatment, his primary consideration is the charge as an unqualified cost to him. These underlying costs that affect these charges have changed quite markedly during the time I have been in private practice.

There are good reasons why I must charge $225 for a delivery that I did in 1949 for $125. Or, why I charge $400 for a hysterectomy I used to do for $275 over the same period of time. It is these factors I wish to consider now in an effort to prove to you that the behavior of the practicing profession is not really all sail and no ballast—even though the bureaus, the labor leaders and the communications industry would have you believe otherwise.

Let us start with the office in the physical sense. I began practice with a very successful practitioner of the generation just preceding mine. I walked into an office that had had no new office furniture, no paint, no new drapes and practically no new literature in the waiting room for two years. The receptionist was an untrained high school girl. The bookkeeper was a very dedicated older woman who ran a single entry system of books and doubled as the personal secretary to the senior man—for $125 per month. The examining room work with the patients was also done by young lay people, hired on minimal wages for that time. They had been taught on the job to check blood pressures, urines and how to get the patients on and off rather antiquated examining tables. Rent at that time was about $2.50 per foot in a downtown location. Don't misunderstand me, this was a successful office doing 40-60 deliveries a month in addition to 11-14 major gynecological procedures every four to six weeks. Also (before you knock it) the basic office charge was $3.50, office visits with treatment, $5; complete physical, $7.50-$10; a delivery, $100; and a hysterectomy, $200-$225.

We now handle a similar patient load per day, but for the same space pay approximately $6 a foot for rent. But, for this amount we get much better housekeeping. The office is painted and redecorated about every two to three years. The equipment is current and first rate because the public demands it. We employ two RNs and a bookkeeper, all over the $500 a month range in salary. The business end of the operation is entirely different than it used to be —and quite expensive—mainly because the Internal Revenue Service makes it necessary. Our office visits begin at $7.50, with the other services escalating upward as I have indicated.

However, it is my opinion that the patient today is getting a much better bargain than her mother did. Again, in my opinion, these private offices adjust much more readily to the changing times and demands than do many heavily over-structured institutionalized arrangements. Of course, there are outstanding exceptions to these generalizations in both directions.

The real culprit in this whole cost-charge bugaboo is really inflation. It all falls back on the purchasing power of the dollar. The problem is compound. It costs more to do business and the essential profit must be numerically greater to hold within reason the incentive factor. Thus, the overall cost or charge to the patient is greater. On this basis alone, the cost of health care has more than doubled in the last few years. What part of this escalation is due to the increased cost within the private practice sector is not known exactly. . . .

It is high time, perhaps, that data banking as concerns all aspects of health care and medical practice become a prime concern of organized medicine. . . .

In all of this, it seems to me that government has failed in one or two of its prime purposes. It has thoroughly malinterpreted the term "the general welfare" and in so doing has lost control of the monetary situation. With a dying dollar, it is the so-called "little people" who are the hardest hit. Not the poor, who earn little or nothing, not the affluent, who have the resources and the knowledge to hedge, but the middle group who make up the bulk of our paying patients. Inflation is the greatest source of "hidden costs" in the private practice of medicine.

Prepayment has had a dual role in the cost of medical care and service. The application of the insurance principle of "spreading the risk" is sound and economically life saving in many health catastrophies. Of course, insurance premiums pay the overhead of the insurance companies; this is an understood item. But, it also inserts a watchdog role within the doctor-patient relationship which costs time and personnel effort and, thereby, money. It costs the time of the physician and the physician's assistant to do the necessary and proper paperwork. Of course, these costs are inbuilt and do not appear itemized on the patient's bill—*a hidden cost,* no doubt.

The argument here is not so much prepayment as it is private insurance vis-a-vis compulsory national health insurance. The only further statement on this that I would make would be to caution one not to fall into the trap of thinking that the government can do it cheaper.

It is an economic fact of life that whenever the demand exceeds the supply, the price will rise. The demand increases because there is more money in the health care market, put there not only by affluence but also by government and also by the insurance industry. Thus, the availability of money in the market place to a health conscious public has greatly increased; and this inflation is again manifested as a "hidden cost" in the charge rendered to the patient.

Another factor that affects the cost problem in the practice of medicine is the threat of litigation. This is a "hidden cost" never seen on the medical statement. When I first went into practice I covered myself for professional liability for $5,000-$10,000. Then the premium for this was about $250 per year. It has changed in two ways. The premium per unit has increased plus the threat of litigation has so changed that I must now protect my family by going to the limits of from $300,000 to $1,000,000. The liability above $300,000 to $1,000,000 is still quite cheap, but the first $300,000 costs almost $1,200 per year. I work in a partnership group of three. Thus, to the group it amounts to $3600 per year for the premiums. This amounts to 18 deliveries net to cover the cost—or a net work load of one man for one month on a better than average month. In order to equalize this it is necessary for the whole partnership to increase its prices and a part of every obstetrical fee will contain a "hidden cost" to cover the threat of litigation.

(Reprinted from *The AMA News,* Nov. 18, 1968)

LIFE OR DEATH

Death is no stranger to the physician. It is no stranger to any person in this world. We read about it, talk about it, fight it, fear it, reject it, dwell upon it and eventually experience it.

The unfortunate paradox of the matter lies in the fact that though DEATH is no stranger to us—LIFE is! Life that we can hear, see, taste, smell and feel vibrating within and around us far too often remains a stranger, denied by our preoccupation with the artificialities of "civilized" society.

What are artificialties? Well, the gadgets; the push-buttons, television, stereo; the electric blankets, the electric tooth brushes; shiny new cars with over-powered engines and things like that. Yes, even the stock market—banks, borrowing and bonds—et cetera, et cetera.

Life is not THINGS. Life is PEOPLE. When the THINGS of life dominate the PEOPLE, we are in trouble. Maybe we should approach our current problems by living a little—with our families, friends, neighbors. And how about the world?

ROBERT M. MATHEWS, M.D.
The Greater Kansas City Medical Bulletin

COMMENT . . .

Our Readers Write

FACILITIES FOR VETERAN PATIENTS

Dear Editor:

The Hemodialysis Unit at the John Cochran Veterans Administration Hospital in St. Louis was organized to provide chronic dialysis facilities for veteran patients in East-Central Missouri and Southern Illinois.

Physicians who have veteran patients under their care who appear to be suitable for a chronic dialysis program are advised to contact the registrar or admitting physician at the hospital.

Sincerely,
JOHN J. GARRETT, M.D.
Associate Professor of Medicine
St. Louis University School of Medicine

Dear Editor:

St. Jude Children's Research Hospital announces the establishment of a Retinoblastoma Clinic for the diagnosis and treatment of tumors and other diseases of the retina of children.

If further information is desired, please write to Charles B. Pratt, M.D. or David Meyer, M.D., St. Jude Children's Hospital, 332 North Lauderdale, Memphis, Tenn. 38101.

Sincerely,
CHARLES B. PRATT, M.D.
St. Jude Children's Research Hospital

County Society News

SIXTH DISTRICT

COUNCILOR
ROLLA B. WRAY, M.D., NEVADA

Lafayette-Ray County Medical Society

The Lafayette-Ray-County Medical Society met at Maib's Cafe in Lexington on November 12 with 21 members and guests present.

Following a social hour and dinner, the business meeting was called to order by President Franklin A. Crozier who turned the meeting over to the guest speaker, Dr. John K. Wallace from the Missouri Department of Health Emergency Medical Service.

Dr. Wallace discussed a proposed law which he apparently is helping to write and which is to be presented to the legislature for passage at a future date. The aspect of the proposed law which he discussed dealt with ambulance service in the state of Missouri. The stated propose of the proposed law is that of upgrading emergency medical service and emergency ambulance service in the state. Dr. Wallace stated that, at present, the ambulance services vary from excellent to dangerous in various aras of the state and the law, if passed, would set up minimum standards with which ambulance services would have to comply in order to continue in this type of business. He did not define the minimum standards completely and thoroughly, but he did distribute literature which contained at least a portion of the proposed law as written including some of these minimum standards.

TO FILE
TO FILE
Bill O'Malley

Dr. Wallace further discussed some of the financial problems involved in providing ambulance service, stating that a population of 10,000, nationwide, requires an average of one ambulance call per 24 hours and that an ambulance service must serve a population of at least 80,000 to be on a paying basis.

The combined population of Lafayette and Ray Counties is approximately 40,000 with approximately eleven firms now attempting to supply ambulance service for the two-county area. In no way could this be a profitable or even a break-even situation for those businesses attempting to supply this service. It was brought to our attention that, because of the inability to make ambulance service a paying business, the proposed legislation setting minimum standards for the service and the recently-increased minimum wage law, all of the firms in the two-county area have now agreed to discontinue the ambulance service for this area as of March 1, 1969.

The firms now supplying the service have met with the respective county courts and county judges to discuss the future problem of providing ambulance service for the respective counties. To this date, no definite action has been taken by the county courts for providing this service in the future.

Dr. Wallace then discussed four methods by which ambulance service has been supplied in other areas. One method consists of a volunteer community ambulance service. A second method combines city ambulance service with either the police or fire department. A third method would be an independent ambulance service provided by cities and/or counties and set up as a division of its own. The fourth method comprises an ambulance service based at and provided by a city or county hospital.

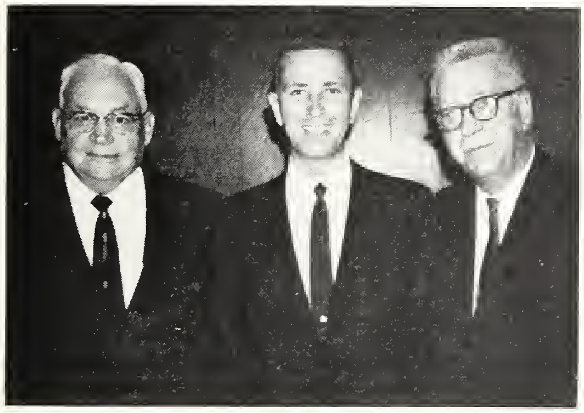
Apparently the proposed legislation makes no provision for placing responsibility for providing this service on the counties, cities or communities of the state, but is only an attempt to set a minimum standard for those who do provide such service.

The proposed legislation was met with rather mixed feelings among the members and guests and a rather lengthy discussion of the legislation and problem of providing ambulance service in the future was held following Dr. Wallace's presentation.

Dr. K. H. Huber suggested that physicians from both counties offer their time and suggestions to the respective county courts and help in any way they can to aid these courts in setting up such service for the future.

Wayne Boydston, M.D., *Secretary*

Pettis County Medical Society



Dr. Rolla B. Wray, Sixth District Councilor *(left)*, and Dr. David N. Kerr, MSMA President *(right)*, visit with Dr. Donald Eldenburg of Sedalia, President of the Pettis County Medical Society.

The Pettis County Medical Society met at the Holiday Inn in Sedalia on November 13.

Special guests included MSMA President David N. Kerr, St. Louis, and 6th District Councilor Rolla B. Wray of Nevada. Both made short talks concerning the relationship of county medical societies to the Missouri State Medical Association.

After dinner, those in attendance, including other physicians from the area, heard a talk by Dr. Arthur Rikli, Columbia, of the Missouri Regional Medical Program. Dr. Rikli discussed activities of the MRMP and then answered questions of those in attendance.

Elmer H. Van Dyke, M.D., *Secretary*

NINTH DISTRICT

COUNCILOR
E. A. STRICKER, M.D., ST. JAMES

Mid-Missouri County Medical Society

Among those attending the Mid-Missouri Medical Society meeting in November were *(left to right)* Dr. E. A. Stricker of St. James, Ninth District Councilor for MSMA; Dr. Barbara E. Russell of Rolla, retiring Secretary of the Society; Dr. Kenneth M. Kays, of Rolla, newly-elected Secretary; and Dr. Thomas K. Beene of Lebanon, the new President.

The Mid-Missouri Medical Society met at Baxter's Restaurant in Rolla on November 21.

A short business meeting was held after dinner with the newly-elected President, Dr. Thomas K. Beene of Lebanon in charge.

The group then went on a tour of the recently-constructed Rolla Regional Mental Retardation Center.

Conducting the tour was Dr. Barbara Russell of Rolla, medical director for the Center, and members of the staff.

Kenneth M. Kays, M.D., *Secretary*

In Memoriam

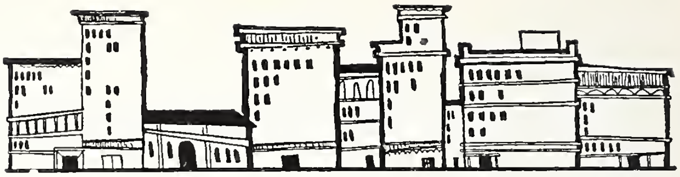
Becke, William G., M.D., St. Louis, a graduate of Washington University, 1923; member of St. Louis Medical Society; aged 70; died Oct. 30, 1968.

Landau, Daniel B., M.D., Hannibal, a graduate of Washington University, 1931; member of Marion-Ralls-Shelby County Medical Society; aged 61; died Nov. 17, 1968.

Wagenbach, Wm. F., M.D., St. Louis, a graduate of Washington University, 1913; member of St. Louis Medical Society; aged 79; died Nov. 24, 1968.

Johnson, Grover C., M.D., Marthasville, a graduate of National University A & S, St. Louis, 1917; member of Franklin-Gasconade-Warren County Medical Society; aged 79; died Nov. 26, 1968.

From the Medical Schools



MISSOURI UNIVERSITY

Dr. Mitchell J. Rosenholtz, who has been appointed assistant dean for student affairs in the School of Medicine, University of Missouri-Columbia, took over his new duties on January 1. He comes to Missouri from the University of Maryland School of Medicine in Baltimore where he has held a similar administrative post for the past three and one-half years.

Dr. Rosenholtz

An anatomic pathologist, Dr. Rosenholtz was graduated from Harvard College in 1952 and received his M.D. degree in 1956 from the University of Minnesota, where he also took his residency training in pathology. From 1960 to 1962, he served at the U. S. Army Chemical Center at Edgewood, Md. before joining the University of Maryland faculty.

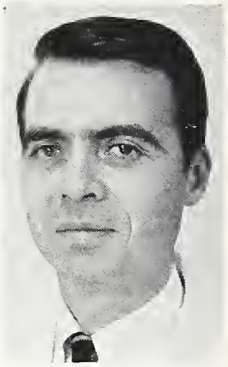
While he will teach some classes in the department of pathology, Dr. Rosenholtz's administrative responsibilities in the School of Medicine will include medical school admissions, student advancement, financial aids for students and career planning. In addition, he will serve in a liaison capacity between the medical school and both high school and college pre-med advisors.

Dr. Jack M. Colwill, whose primary duties have been concerned with student affairs for the past four years, will assume more administrative work as associate dean of the School of Medicine, working with Dean William D. Mayer.

Dr. Leonard H. Brubaker has been appointed an assistant professor in the Department of Medicine at the University of Missouri-Columbia. Dr. Brubaker received his A.B. degree with a major in chemistry at Duke University in 1956 and for three years was a clinical chemist at Chelsea (Mass.) Naval Hospital. He received a master's degree in biochemistry and his M.D. degree at Emory University, Atlanta, in 1964.

ST. LOUIS UNIVERSITY

Two recent appointments at the St. Louis University School of Medicine were those of Dr. George D. Sorenson, formerly professor of pathology at the Washington University School of Medicine and associate pathologist at Barnes and Allied Hospitals, who has been named professor and chairman of the department of pathology. He has been a member of the Washington University School of Medicine faculty since 1959.



Dr. Sorenson

Dr. Robert M. Donati has been named director of the section of nuclear medicine. A former faculty member, Dr. Donati was on military leave from 1966 to 1968 at Walter Reed Army Institute. A graduate of the St. Louis University School of Medicine, he took his internship at St. Louis City Hospital, was assistant resident in medicine at John Cochran Veterans Hospital and a fellow in nuclear medicine at St. Louis University from 1962 to 1963.

Dr. Donati

Dr. Edwin E. Westura has been appointed associate professor of internal medicine, cardiovascular section, and director, Stress Physiology Laboratory in the division of cardiology of the department of internal medicine.

Dr. Westura comes from the United States Public Health Services where he was chief of the Applied Physiology Laboratory of the Heart Disease Control Program from 1966 to 1968. He will hold several other administrative appointments at the St. Louis University School of Medicine, including director, Coronary Intensive Care Unit, St. Louis University Hospitals and associate director for heart, Bi-State Regional Medical Program, St. Louis.

The Lions Eye Bank in St. Louis, which is headquartered at the St. Louis University Hospitals, was inaugurated on November 29 following the second Milton Robert Israel Memorial lecture. Dr. Claes H. Dohlman, director, Cornea Research Unit, Retina Foundation, Boston, spoke on "Advances in Corneal Transplant Surgery." Dr. Richard B. Ogelsby, a senior instructor in ophthalmology at the School of Medicine, will direct the bank.

A first place award was won by three members of the department of gynecology and obstetrics at the meeting of the Southern Medical Association held in New Orleans recently. Exhibitors were Dr. Denis Cavanagh, professor and chairman of the department; Dr. K. B. Singh, instructor; and Dr. George J. Honiotes, instructor. Title of the award-winning exhibit is "Endotoxin Shock in Obstetrics and Gynecology."

Dr. Morton Weber, professor and chairman, department of microbiology, has been elected chairman of the St. Louis University Biochemistry Group for 1968-1969. Dr. Weber also has been appointed a member of the United States Public Health National Institutes of Health Microbial Chemistry Study Section.

Dr. Kenneth R. Smith, Jr., chairman, section of neurosurgery, presented a paper entitled "Surgical Aspects of Alzheimer's Disease: Clinical and Uutrastructural Observations" at the St. Louis Meeting of the Association for Academic Surgery on November 8.

Dr. J. Eugene Lewis, Jr., spoke on "Abdominal Tumors" to the 11th Annual Faun S. Milliken Symposium for Nurses, "Cancer in Children," on October 16 at the St. Louis Medical Society building. Dr. Lewis is cochairman of the Professional Education Committee of the American Cancer Society. Dr. Lewis also attended the American Academy of Pediatrics, Surgical Section meeting in Chicago recently.

Dr. Thomas Thale, department of psychiatry, attended the "Inter-University Forum for Educators in Community Psychiatry" which is held twice a year at the University of Pittsburgh. The subject of the Forum on October 20-26 was "The Consultation Role of the Psychiatrist in the Changing World of Society."

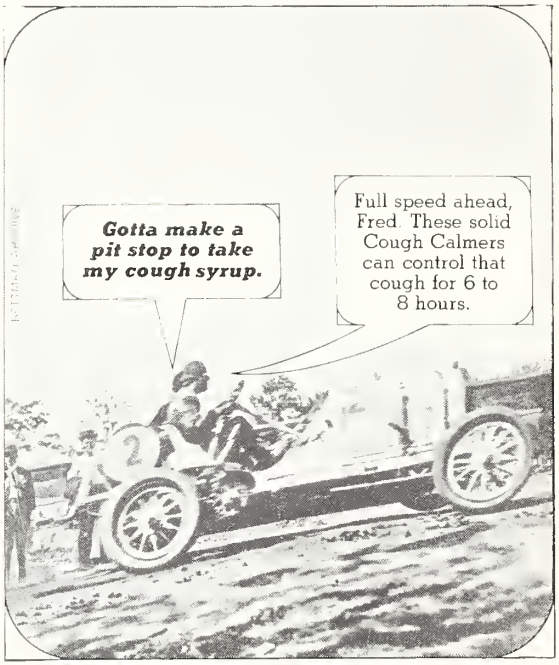
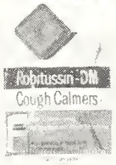
Dr. Thomas F. Frawley, professor and chairman of the department of internal medicine, School of Medicine, is a contributing author of the newly-published textbook, *Current Diagnosis*, by Conn and Conn. The book deals with advances in the diagnosis of all varieties of medical disorders and describes approaches to be used in reaching a diagnosis.

WASHINGTON UNIVERSITY

Carl Frieden, Ph.D., professor of biological chemistry, has been elected president of the Washington University Medical Society. The organization is composed of all members of the Washington University School of Medicine faculty and students.

Secretary-treasurer is Jessie L. Ternberg, Ph.D., M.D., associate professor of surgery. Council members are William H. McAlister, M.D., professor of radiology and of pediatrics; William S. Coxe, M.D.; David B. McDougal, Jr., M.D., associate professor of pharmacology; John A. Pierce, M.D., associate professor of medicine; and Sondra Schlesinger, Ph.D., assistant professor of microbiology.

The retiring president is Stanford Wessler, M.D., John E. and Adeline Simon Professor of Medicine.


Gotta make a pit stop to take my cough syrup.
Full speed ahead, Fred. These solid Cough Calmers can control that cough for 6 to 8 hours.
2


Each Cough Calmer™ contains the same active ingredients as a half-teaspoonful of Robitussin-DM® Glyceryl guaiacolate, 50 mg., Dextromethorphan hydrobromide, 7.5 mg. A. H. Robins Company, Richmond, Virginia 23220

A·H·ROBINS

Continuing Education Coming Events

Jan. 16	**Multidisciplinary Cleft Palate Clinic and Conference** M.U. School of Medicine Medical Center, Columbia
Jan. 17	**Conference—Medical-Legal Aspects of Disability** Continuing Education, M.U. School of Medicine Medical Center, Columbia
Feb. 5	**Conference—Office Pediatrics** Continuing Education, M.U. School of Medicine Medical Center, Columbia
Feb. 14-15	**Fifth Midwest Conference on the Thyroid** Continuing Education, M.U. School of Medicine Medical Center, Columbia
Mar. 12-13	**Conference—Drug Therapy** Continuing Education, M.U. School of Medicine Medical Center, Columbia
Mar. 21-22	**21st Annual Midwest Cancer Conference** Broadview Hotel, Wichita, Kan.

HIGHLAND HOSPITAL

ASHEVILLE, NORTH CAROLINA

Founded 1904

A DIVISION OF THE DEPARTMENT OF PSYCHIATRY OF DUKE UNIVERSITY

Accredited by the Joint Commission on Accreditation and Certified for Medicare

Complete facilities for evaluation and intensive treatment of psychiatric patients, including individual psychotherapy, group therapy, psychodrama, electro-convulsive therapy, Indoklon convulsive therapy, drugs, social service work with families, family therapy and an extensive and well organized activities program, including occupational therapy, art therapy, athletic activities and games, recreational activities and outings. The treatment program of each patient is carefully supervised in order that the therapeutic needs of each patient may be realized.

High school facilities for a limited number of appropriate patients are now available on grounds. The School Program is fully integrated into the hospital treatment program and is accredited through the Asheville School System.

Complete modern facilities with 85 acres of landscaped and wooded grounds in the City of Asheville.

Brochures and information on financial arrangements available

Contact: Mrs. Elizabeth Harkins, ACSW, Coordinator of Admissions

or

Charles W. Neville, Jr., M.D.

Assistant Professor of Psychiatry and Medical Director

Area Code 704-253-2761

CLASSIFIED ADS

PRACTICE FOR SALE—Stable, thriving midwestern town of 90,000. Excellent place to raise family. Excellent hunting and recreational facilities. Eleven-room, well-equipped office building in excellent repair. Wonderful opening for Internist or well-trained General Practitioner. Deceased GP practice has been $60,000 gross with time off. Reply promptly to Box 353, c/o Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

INTERNIST-CARDIOLOGIST—Board qualified; age 32; military completed. Seeks group association. Availability July, 1969. Contact Box 351, c/o Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

WANTED—General practitioner for staff physician on General Medical Service. Regular hours. Starting salary $14,409 to $19,771. Generous fringe benefits, including outstanding retirement program. Nondiscrimination in employment. For further information, contact Chief of Staff, Veterans Administration Hospital, Des Moines, Iowa 50309.

FOR SALE—Surgical instruments, office equipment, sterilizers, etc. Nothing priced higher than 25% of catalogue price. Physician retiring. Also, three or four room, air-conditioned office FOR RENT. Choice location in Fulton, Mo. Two colleges, two institutions, various factories and other industries. Fulton is located a short distance from U. S. Highway 70-40 between Kansas City and St. Louis. Contact Box 349, Missouri State Medical Association, 515 East High St., Jefferson City, Mo. 65101.

WANTED—General practitioner or internist and an OB-Gyn man for a well-established, four-man group practice in an old, historical town serving a population area of approximately 20,000. We have a fully accredited, 78-bed hospital with laboratory and radiology service. Write to Medical Clinic, Lexington, Mo. 64067.

TWO INTERNISTS—Board eligible or certified, wanted by multi-specialty group in Central Texas associated with 100-bed hospital. $20,000-$24,000 annual salary; early partnership; no investment. Write G. H. Wahle, Jr., M.D., King's Daughters Clinic, Temple, Texas, or call collect, AC 817 778-5501.

WANTED—Obstetrician, Internist, Pediatrician or General Practitioner interested in these disciplines or interested in anesthesia to join six-man hospital-clinic group. Write V. W. Lehr, Administrator, Grim-Smith Hospital & Clinic, 112-201 E. Patterson, Kirksville, Mo. 63501.

WANTED: Associate or partner in general practice in Jefferson City, Mo., 30 miles from Missouri University Medical Center. A practice overwhelming after 2½ years. Net income, $35,000 to $45,000 annually. Building a new medical building with room for one or two associates to be completed September, 1968. If interested, pleace call Jefferson City, Area Code 314, 635-2542 or 635-6580.

FOR SALE—A real bargain price of only $55.00 for a new, complete set of surgical instruments for the removal of tonsils and adenoids. Consists of new Aloe chrome guillotine, retractor, knife, curette, adenotome, mouthgag and snare. Instruments have never been used. Write Box 352, c/o Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

PATHOLOGY RESIDENCY—Openings available in 500-bed modern hospital; approved for four years in anatomic and clinical pathology; active school of medical technology; stipends as follows—$7,200 first year; $7,800, second year; $8,400, third year; $9,000, fourth year; additional $50 per month paid to married residents; furnished apartments provided married residents; meals while on duty; uniforms and uniform laundry also provided. Contact Director of Laboratories, Research Hospital and Medical Center, Meyer at Prospect, Kansas City, Mo. 64132.

DOCTORS NEEDED—Growing city of 25,000 in Central Oklahoma urgently needs GP and Internist. Ample practice almost immediately. Modern JCAH hospital. Open staff. Excellent professional facilities and personnel. Congenial and cooperative medical staff. Four-year university and two-year Jr. College, both coed and accredited. Good public school system. Numerous cultural and sports opportunities here or few minutes by turnpike. If interested, contact Leon D. Combs, M.D. or Francis A. Davis, M.D., Medical Arts Bldg., Union at Highland, Shawnee, Okla. 74801.

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The Missouri State Medical Association since 1943 has made available to its members a Special Disability Income Benefits Policy issued by our "Loyalty Group" Companies now a part of the America Fore-Loyalty Group Insurance Companies—the largest casualty-fire underwriting group in the world. The low cost at which the policy is offered is made possible through the purchasing power of the membership of your association as a whole.

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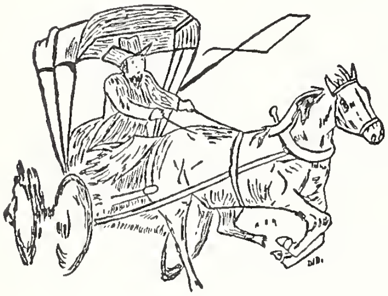

FORTY YEARS AGO

Dr. R. B. H. Gradwohl, St. Louis, sailed for Germany on the S.S. *George Washington* on December 12 to spend six weeks in the laboratory of Professor Schilling of the University of Berlin. Dr. Gradwohl's visit is in connection with the translation of Professor Schilling's new textbook on hematology which will be published soon after his return. Dr. Gradwohl will study Professor Schilling's new method of differential blood counting in diagnosis and prognosis.

In 1923, Dr. E. P. Sloan of Bloomington, Ill., invited a few surgeons whom he knew were interested in goiter work to meet with him at the Sloan Clinic in St. Joseph's Hospital, Bloomington. This was such a successful gathering that, before it adjourned, plans had been laid for the organization of the American Association for the Study of Goiter. From this nucleus, the Association has grown in popularity by leaps and bounds until about 300 persons attended the three-day meeting in Denver in June, 1928.

TWENTY-FIVE YEARS AGO

The following physicians have been elected officers of the Kansas City Southwest Clinical Society: Drs. Max Goldman, president; J. A. Billingsley, vice-president; W. M. Korth, secretary; H. S. Valentine, treasurer; Carl B. Schutz, director of clinics; Vincent T. Williams, associate director of clinics; and E. H. Skinner, editor. New Executive Committee members are Drs. J. V. Bell, L. Lafe Bresette, Carl F. Ferris, W. M. Ketcham, Ira H. Lockwood, J. Milton Singleton and J. E. Stowers.

Dr. William M. West of Monett has deeded his hospital in Monett to the Vincentian Sisters of Charity of Perrysville, Penn., who will operate it as a general hospital which will be available to the public.

Reemphasizing the very serious surgical hazard from the use of talc as a dusting powder for rubber gloves, M. G. Seeling, M.D., D. J. Verda, M.D. and F. H. Kidd, M.D. of St. Louis recommended in *The Journal of the American Medical Association* for December 11 that potassium bitartrate be used as a substitute.

In accordance with the premarital law passed by the last legislature, the State Board of Health has prepared a certificate and report forms to be used in regard to the blood test required of each and every applicant for a marriage license.

The St. Francois-Iron-Madison-Washington Reynolds County Medical Society met at the Bonne Terre Hospital at 8 PM on November 26. The following were present: Drs. David E. Smith and A. L. Evans, Bonne Terre; Harry Barron, Fredericktown; Reuben Appleberry, Farmington; H. H. Cline, Flat River; H. C. Gaebe, Desloge; and John W. Hunt, Jr., Leawood.

TEN YEARS AGO

A dedication ceremony of the new Texas County Memorial Hospital at Houston, Mo., was held at the hospital on November 25. Former President Harry S Truman was the principal speaker. He was lavish in his praise of the people in Texas County for their efforts in establishing this hospital. The hospital is a one-story brick structure with a 34-bed capacity. It is located on the southern outskirts of Houston, the county seat of Texas County, which is the largest county in Missouri, geographically speaking. Nine physicians comprise the active staff. Garrett Hogg, Jr., M.D., Cabool, is chief of staff; T. J. Burns, M.D., Houston, is chief of surgery; John Tarr, M.D., Houston, is chief of medicine; and Paul Beckman, M.D., Houston, is chief of obstetrics and gynecology.

New officers for the State Board of Examiners are W. S. Sewell, M.D., Springfield, president; James W. Willoughby, M.D., Liberty, vice-president; and Edwin F. Vitt, M.D., St. Louis, secretary-treasurer.

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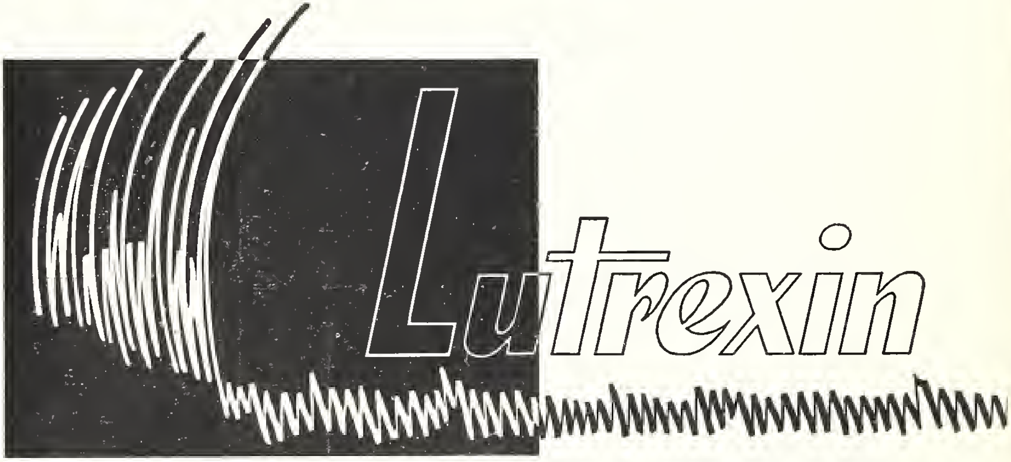

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Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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g the condition.
se **Reactions:** Dry mouth,
pation, disturbed visual ac-
odation, anorexia, perspira-
nsomnia, drowsiness, dizzi-
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s include tachycardia, changes in EEG patterns, tremor, falling, mild extrapyramidal activity, neuromuscular incoordination, epileptiform seizures. A confusional state (with such symptoms as hallucinations and disorientation) occurs occasionally and may require reduced dosage or discontinuance of therapy. Rarely, transient eosinophilia, slight elevation in transaminase levels, transient jaundice, or liver damage have occurred. If abnormalities occur in liver function tests, discontinue drug and investigate. Occasional hormonal effects, particularly decreased libido or impotence and instances of gynecomastia, galactorrhea and female breast enlargement have been observed. Urinary frequency or retention may occur. The drug should be discontinued if agranulocytosis, bone marrow depression, jaundice, thrombocytopenia, or purpura occur.
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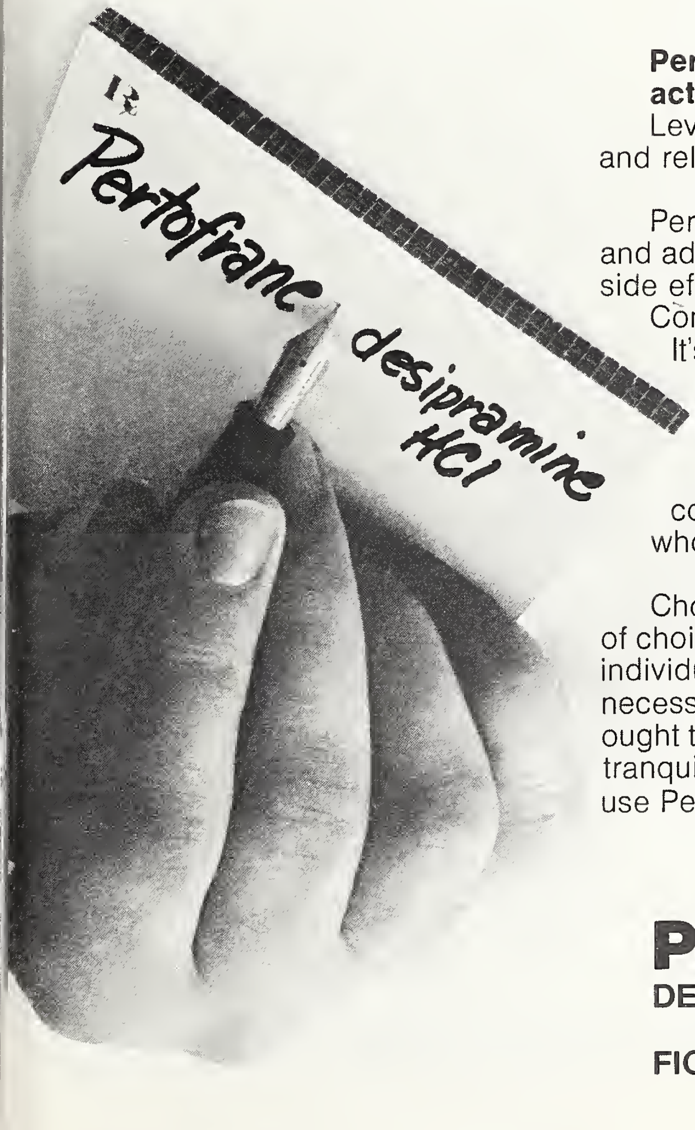

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The Council Reports

Meeting of Dec. 14-15, 1968

Joseph L. Fisher, M.D., St. Joseph, Chairman, called the meeting to order. The following persons were present: Drs. Fisher, Walter T. Gunn, St. Louis; Robert A. Mayer, Clayton; James C. Cope, Columbia; Rolla B. Wray, Nevada; Gerald L. Miller, Kansas City; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; W. D. English, Cardwell; David N. Kerr, St. Louis; Doyle C. McCraw, Bolivar; Max S. Franklin, St. Louis; Joseph V. Finnegan, St. Louis; A. W. Neilson, St. Louis; Stanley S. Peterson, Springfield; J. Loren Washburn, Versailles; William D. Mayer and W. C. Allen, Columbia; William B. See, Columbia; Richard W. Yore, St. Louis; John T. Crowe, Cape Girardeau; Edwin M. Powell, Springfield; Messrs. John W. Noble, Kennett; Hollister Smith, St. Louis; Edgar Mothershead, Clayton; Gary Schnedler, Springfield; Allen D. Smith, Kansas City; Lemoine Skinner, Jr., T. R. O'Brien, St. Louis; Ray McIntyre, Tom P. Fox and Bob Carroll, Jefferson City.

Mr. McIntyre reported that Mr. Royal Cooper had been employed to replace Mr. Don Brummall in the Executive Office and will join the staff on Jan. 6, 1969. Mr. Cooper was present and was introduced to the Council and Officers and others present.

It was reported that flowers were sent on behalf of the Council and Officers for the funeral of Dr. Thompson E. Potter of St. Joseph, and a note of appreciation was received from the family. Mr. McIntyre also reported that a letter of condolence was sent to Mrs. Charles Osborne when we learned of the death of Dr. Osborne, one of our Vice-Presidents, and a letter of appreciation was received from Mrs. Osborne. He also reported that Dr. Emma A. B. Thompson, an honor member of Grand River Medical Society now residing in Columbia, celebrated her 100th birthday in November. Flowers were sent to her and a very nice thank you note was received.

Mr. McIntyre reported that since Dr. Potter was a member of the Governor's Advisory Committee on Comprehensive Health Planning, additional names of physicians have been sent by Dr. Kerr to the Governor for consideration as a replacement for Dr. Potter. He stated that no reply had been received up to this time.

Mr. McIntyre then reported that a request had been received from the Woman's Auxiliary for $600 to help defray expenses incurred for their 1969 Annual Session. This was referred to the Budget Committee for approval.

He also called attention to an article in the Nov. 25, 1968 edition of *Medical Economics* which was written by Dr. Cope of Columbia and entitled "You Doctors Make So Damn Much Money."

Mr. McIntyre called attention to copies of letters exchanged with Mr. Rexford, President of Blue Cross Hospital Service, St. Louis, in regard to Form SB-811, as directed by the Council in September, 1968, requesting reasons for the use of this particular form.

Dr. Cope reported that on Nov. 13, 1968, another letter and similar form was received, indicating that Blue Cross was continuing use of the form in question. After discussion, it was decided to table the matter until Sunday and that Dr. Cope and Mr. Noble should formulate another letter to be sent to Mr. Rexford. On motion, duly seconded, this was approved.

The Chairman, Dr. Fisher, called for approval of the Special Council meeting minutes of Sept. 6, 1968 which dealt with the Long Range Planning Committee report. On motion of Dr. Kerr, duly seconded, the minutes were approved.

Dr. Fisher then called for approval of the minutes of the Council meeting held on Sept. 7-8, 1968 in Springfield. On motion of Dr. McCraw, duly seconded, the minutes were approved.

Dr. Franklin presented a report on the financial standing of the Association as of Nov. 30, 1968, stating that the balance on hand would be sufficient to take care of the December bills and part of the January bills up until such time as 1969 dues are collected. He stated that we should be able to stay within our budget for the balance of 1968. On motion of Dr. Kerr, duly seconded, the financial report was approved.

Dr. Kerr reviewed the minutes of the Nov. 23, 1968 meeting of the Long Range Planning Committee and also of a subsequent meeting held in Miami on December 3 during the AMA session. He stated that consideration was given regarding restructure of committees, possibly placing them under three commissions, the purpose being (1) to bring the various separate committees under some sort of head (2) and, possibly, to eliminate or combine some committees. It was suggested that an Executive Committee of the Council be formally established with the Association President as its chairman. Six committees might well function directly under the Executive Committee, namely, Constitution and Bylaws, Legislative Matters, Budget, Planning, Grievance and Publication. It was proposed that members of the Planning Committee serve five year terms for continuity.

Functioning directly under the Council would be any Ad Hoc Committees to be named as needed and the following three commissions: Commission on Interspecialty Medicine, Commission on Public Affairs and Commission on Physician Relations and Health Manpower.

A diagram showing the breakdown was distributed to the Council for their comments and suggestions for establishing a basic structure. Dr. Kerr stated that a meeting of the Interspecialty Committee was scheduled for Jan. 19, 1969, at which time this matter will be presented to them for their comments and suggestions as to this proposed realignment.

Dr. Kerr also explained that the Council might direct such a restructure of committees on a trial basis before going to the House of Delegates with the matter.

Dr. Fisher asked about some provisions for recruiting young students into the field of medicine and getting physicians to locate in Missouri, particularly in rural areas, stating that both should be part of any present and future planning. Dr. Kerr explained that this would come under the proposed Physician Relations and Health Manpower Commission.

After considerable discussion, on motion of Dr. Miller, duly seconded, it was agreed that the report be accepted as information to the Council only and that action be deferred until after the meeting of the Interspecialty Medicine Committee in January, 1969. The motion carried.

Mr. O'Brien reported that the carrier for the Group Major Hospital and Nurse program for members of MSMA has been losing money in the last several years due to increased hospital costs. He stated that this program has been in effect for about ten years and covers members, members families and office personnel of members. He stated that in 1968 the total claims paid exceeded the income for that period. He explained that the Major Hospital and Nurse program has a $250 or $500 deductible plan and the contract pays for 100% of hospital expense above the deductible and 75% of nurse expense above deductible. The present premium scale is for 18 to 39, 40 to 49 and 50 to 65 years of age. He stated that the new proposal would keep the deductible at $250 or $500 and add a $1,000 deductible plan with a sizable reduction in premium. The member also would have the right to select a maximum of $10,000 or $15,000 limit pertaining to a single illness. He explained the additional premium would be approximately 50% more than the premium now charged. Also, he stated, the program would cut off at 65 years of age because of Medicare. Mr. O'Brien stated that, even with the increased premiums, it is still a good program and that members could not do much better.

It was pointed out that if the program were not approved by the Council, the only alternative would be that the carrier would cancel the whole group and some members would not be able to get any other coverage. On motion of Dr. Wray, duly seconded, the proposed plan was approved.

Mr. Fox presented a brief review of the minutes of the Committee on Nursing and Paramedical Personnel for Dr. John H. Walters, the Chairman, who was unable to attend. He called attention to the Clearing House which had been in effect for two years and stated that it was agreed to discontinue the Clearing House program since nursing school officials have been reluctant to release names of surplus student applicants. Mrs. Keith reported that very few schools had reported any surplus of applicants to her office. It also was reported that some surplus applicants for the three-year diploma programs were not qualified for four-year degree programs. Dr. Walters was to meet with Dr. William Danforth and also with Dr. Signorelli and Father Drummond, S.J. of St. Louis University School of Nursing. It was reported that programs and facilities are being developed and available to match loss of facilities due to closing three-year diploma schools and that student applicants found not to be qualified for collegiate programs are being encouraged to enter technical nursing and licensed practical nurse programs.

It was reported that the Committee considered the Nursing Research Project in Missouri to be under the direction of Mrs. Mauksch of the University of Missouri. The study will project the nursing needs in Missouri through 1990 and the necessary faculty, facilities, etc. to meet these needs.

It also was reported that the Illinois State Medical Association had sponsored a similar program in Illinois, but no financial assistance was given. Council approval was asked regarding support of such a program in Missouri. It was moved by Dr. Cope, and seconded, that the Council approve supporting this project with no financial assistance involved. The motion carried.

It was reported that a Masters Degree program in nursing will begin in the Fall of 1968 at the University of Missouri and a second program will begin in the Fall of 1969.

The following resolution regarding Recruiting Men into Nursing Service was submitted to the Council for approval and submission to the House of Delegates:

> Whereas, The present supply of nursing personnel in Missouri and over the country does not meet the demand, and
>
> Whereas, This imbalance in the next decade, as indicated by survey, will become more acute, and
>
> Whereas, Pilot experience indicates interest of male recruits in selective nursing positions, and
>
> Whereas, Current efforts by the United States Government are inadequate in the recruitment of discharged medical service personnel into health careers open in this country, and
>
> Whereas, The Medical Schools in the United States have made inadequate provision to properly utilize the experience and past training of such medical service personnel by not providing for availability of further training and utilization, therefore be it
>
> *Resolved*, That the Missouri Delegates to the American Medical Association Annual Session in June, 1969 urge AMA House of Delegates to endorse the recruitment and accredited training of male nursing educators and students. The House of Delegates should strongly advocate action by the Legislative and Executive branches of the government of the United States to take all the necessary steps to promote the above outlined objectives.

On motion of Dr. Kerr, duly seconded, the resolution was approved for presentation to the MSMA House of Delegates.

Mr. Fox reported that a request had been received from the Missouri Hospital Association for Missouri State Medical Association endorsement to implement a health career recruitment project through the Educational and Research Trust of the Missouri Hospital Association and funded by the Missouri Regional Medical Program. An application for a grant has been submitted to MRMP for this project. The request was for endorsement and support, but no financial assistance.

On motion, duly seconded, the Council approved the proposal of the Missouri Hospital Association.

It also was reported that the Missouri Board of Nursing plans to submit a proposal for an increase in nurse licensing and registration fees to the State Legislature. It was suggested a letter be sent over the President's signature indicating MSMA support or approval of a reasonable increase in such fees. A bill to this effect is to be introduced in the next General Assembly.

After discussion, on motion of Dr. Wray, duly seconded, it was agreed that the Council approve the Nursing Board proposal and that a letter be forwarded over the President's signature indicating support of a reasonable increase in licensure and registration fees.

The Council met in Executive Session on Saturday morning to consider the 1969 proposed budget which was presented by the Budget Committee.

On motion of Dr. English, duly seconded, the following Budget was approved for 1969:

Salaries	$106,990.00
Furniture and Fixtures	1,500.00
Office Rent and Lights	7,680.00
General Expenses	2,500.00
Office Supplies	4,000.00
MSMF Assessments	35,250.00
Postage	5,000.00
MSMF Expenses	2,500.00
Journal Expenses	35,000.00
Equipment Rentals, etc.	2,200.00
Telephone and Telegraph	5,500.00
Pension Expenses	15,935.00
Legal and Professional	8,500.00
Taxes and Payroll	3,524.00
Travel Expenses	6,000.00
Meetings and Committee Expense	29,300.00
Annual Session	19,000.00
Total	$290,379.00

Mr. Fox reviewed the minutes of the meeting of the Committee on Infant and Child Care which was held on Sept. 22, 1968 in Jefferson City. The Committee reviewed and accepted a progress report on a School Health Teaching Program submitted by the State Department of Education, Division of Public Schools, which was approved by the MSMA House of Delegates and submitted to the State Department of Education for implementation.

Dr. Magness attended a joint meeting of the Committee on Health Problems in Education of the NEA and AMA conducted on April 21, 1968. A number of resolutions were adopted at this meeting and the Committee reviewed and accepted each in principle. Generally, the resolutions urged improved health education for the student and safer practices in school athletic programs. It was reported that most are in effect in some degree in the state of Missouri and possibly could be improved. The Committee also reported on the PKU Law and the Division of Health reported that some institutions are not complying with the Law or conducting tests only on a small percentage of the newborn delivered in their respective hospitals. It was stated that the physician, hospital and laboratory are all involved in complying with the Missouri Law. Attention was called, despite rumors of excessive cost, to the fact that the overall budget in the Missouri Division of Health for this PKU program is $18,000 annually.

Dr. Cope moved that, in view of previous information which was brought to the Council, the Council would like clarification on the cost of each positive PKU test that is found and requested that the Infant and Child Care Committee of the Association be requested to get a breakdown on actual cost to the State of Missouri for the PKU program. The motion passed. A detailed report was included in the report regarding Perinatal Studies and it was felt that there was some overlap which needed the opinion of the Maternal Welfare Committee. Dr. See, representing the Committee on Maternal Welfare, stated that any perinatal study should include obstetricians and pediatricians. He stated that such a combined effort is important for study of neonatal care to prevent premature births. He stated that these studies are time consuming and a real problem in hospitals that do not have a resident and intern program. The Committee on Infant and Child Care agreed that the Council be asked to officially approve a statewide program and to designate a committee to be responsible for implementation.

After discussion, Dr. Gunn moved approval of the report of the Infant and Child Care Committee. The motion carried. (The full report of the Committee is on file in the Executive Office.)

Dr. See presented the report of the Maternal Welfare Committee which met in Columbia on Nov. 3, 1968. He stated that the Maternal Death Studies of the St. Louis and Kansas City Gynecological Societies have continued and a report of these studies will be presented at the Annual Maternal Welfare luncheon on March 21, 1969. Dr. See also reported that the Committee reaffirmed its previous recommendations on any change in the State Law related to Abortion. The Committee also voted to change its statistical reporting year from the present November to November to correspond to the calendar year of the Division of Health.

The Committee also voted to make an effort to encourage a statistical study of maternal deaths attended by osteopaths so that state statistics will be more meaningful since about 10% of births are attended by osteopaths.

Dr. See reported that there is evidence of increasing need for study of perinatal infant mortality in the state. As reported, this was studied jointly by the Maternal Welfare Committee and the Infant and Child Care Committee. It was recommended that a separate Perinatal Infant Mortality Committee be established by the State Association with representation from the specialties of Pediatrics, Obstetrics, Anesthesiology, Pathology, Internal Medicine and other areas as indicated. It was suggested that such studies be on a hospital-by-hospital basis with coordination by Health Departments in the Metropolitan areas.

The Committee also considered the legality of sterilization procedures in Missouri. It was reported that any sterilization procedure, male or female, under present laws might be construed as assault in spite of free will assent and permit. The Committee strongly recommends that the Council and State Association do everything possible to insure prompt legal definition of this problem and passage of a clearly stated and understood law.

Dr. See then gave a brief report on the program to be sponsored by the Maternal Welfare Committee at the 1969 Annual Meeting, stating that Dr. George H. Gardner of Northwestern University will present a paper entitled "Management of Endometriosis," and also will be a guest at the Maternal Welfare luncheon that same day.

It was suggested that other states should be contacted for copies of their laws relative to sterilization for the Legislative Committee and the Maternal Welfare Committee to study.

On motion of Dr. Cope, duly seconded, the Report of the Committee on Maternal Welfare was approved with pertinent portions to be referred to the Legislative Committee.

Mr. Carroll presented the following Legislative Report for Dr. Matthews, Chairman of the Legislative Committee. He stated that the Medical Examiners bill is to be introduced in the coming session. It is practically identical to the one introduced in the last session and the Association is on record as approving it.

It is understood that some practitioner groups may make a strong effort to be included under Title XIX in Missouri in the 1969 Legislative Session, as well as change their present practice acts.

He reported that the present Drunk Driving Test Law has run into some problems and there appears to be a likelihood that a bid will be made to change it some.

There is a possibility that some sort of bill will be introduced to set ambulance service standards. A Good Samaritan bill will probably be introduced.

It is assumed that a bill will again be introduced to change the abortion law. It also is contemplated that a uniform Anatomical Gift Act will be introduced.

It is anticipated that legislation will be introduced to license physical therapists, laboratory technicians, laboratories and, possibly, psychologists. There are numerous other bills of a health nature which may be introduced that we are not aware of at this time.

It is assumed that the University of Missouri Board of Curators will ask for additional funds in appropriation bills to establish a four-year medical school at Kansas City.

Discussion followed regarding the eye care situation in Missouri, particularly in rural areas where few ophthalmologists are available. It was suggested that the Council designate the Eye Health Committee to study the problem. After further discussion, on motion of Dr. Miller duly seconded, it was agreed that the Council instruct the Committee on Eye Health to assess the problem of eye care in the state of Missouri and bring back tangible recommendations to the Council.

On motion of Dr. Stricker, duly seconded, the Legislative Report was approved.

Mr. McIntyre reviewed the minutes of the Medical Economics Contract Committee meeting which was held on Sept. 22, 1968 in Jefferson City with 21 persons present. He reported that the Division of Welfare was

(Continued on page 144)

MSMA News

Legislative Highlights

The 75th General Assembly of Missouri convened on January 8th in Jefferson City and members have been introducing legislation at a rate which may provide a record number of bills.

As of January 14, 142 bills had been introduced in the House of Representatives and 35 in the Senate. In addition, two joint resolutions had been introduced in the Senate and 13 in the House.

The leadership of the House of Representatives remains the same. Representative James Godfrey of St. Louis was reelected speaker and Representative Richard Rabbitt of St. Louis was reelected majority floor leader. Representative Patrick Hickey of St. Louis County was reelected speaker Pro-Tem of the House. All are Democrats. Veteran Republican R. J. (Bus) King of St. Louis County was reelected minority floor leader.

The Senate has new leaders. Senator Earl Blackwell of Hillsboro in Jefferson County is the new President Pro-Tem and Senator A. Basey Vanlandingham of Columbia was elected majority floor leader. Both are Democrats. Senator A. Clifford Jones of St. Louis County is the minority floor leader for the Republicans.

Planning funds for the proposed medical school at the University of Missouri—Kansas City were included in House Bill No. 16 in the amount of $150,000. Such funds were recommended by Governor Warren E. Hearnes in his budget message.

Among other measures relating to medicine or health introduced early in the session are the following:

HB 39—Would provide for the registration of physical therapists under the Board of Healing Arts.

HB 40—Makes it mandatory for physicians to report suspected cases of child abuse.

HB 69—Authorizes the gift of all or part of a human body after death for specified purposes (Uniform Anatomical Gift Act).

HB 85—Makes various changes in the chiropractic practice act.

Congressman Hall And Sports Editor Luncheon Speakers At Annual Session

Dr. Durward Hall
Member of Congress

Two general luncheons, one Friday and one Saturday, will be among the highlight activities at the 111th Annual Session of the Missouri State Medical Association at the Chase-Park Plaza Hotel in St. Louis on March 20-23.

The speaker at the Saturday general luncheon will be the Honorable Durward G. Hall, M.D., member of Congress from Missouri.

Dr. Hall, a Republican from Springfield, was elected to Congress in 1960 and reelected in 1962, 1964, 1966 and 1968. His committee assignments in the House of Representatives include Armed Services and Special Committee on Organization of the House.

A native of Cassville, Dr. Hall attended Greenwood High School; Drury College at Springfield where he received an A.B. degree; and Rush Medical School, University of Chicago, where he received his M.D. degree.

Dr. Hall is an active member of the Greene County Medical Society and of the Missouri State Medical Association. He served as a Delegate to the AMA from Missouri State Medical Association.

Burnes To Speak at Noon on Friday

The Friday noon general luncheon speaker will be Mr. Robert L. Burnes, executive sports editor of the *St. Louis Globe-Democrat.*

Mr. Burnes has chosen as his title "A Little Thing Called Desire," and he says that he will hopefully try to explain why the St. Louis Cardinals won a World Series in 1967 and did not win in 1968.

Mr. Burnes is one of the better known sports editors in the nation.

His popular "Benchwarmer" column, which has appeared for many years in the *Globe-Democrat,* is one of the best-read features in that metropolitan newspaper.

Three luncheons are scheduled on Friday in addition to the general luncheon. They include the Fifty-Year Club Luncheon, the luncheon sponsored by the Committee on Maternal Welfare and the University of Missouri Alumni Luncheon.

The 111th Annual Session of the Missouri State Medical Association opens with registration starting at 11 AM on Thursday, March 20. A House of Delegates session is scheduled to start at 1:30 PM that day. Reference committee will meet at 4:30 PM.

Scientific sessions are scheduled on both Friday and Saturday. The House of Delegates will hold its second session Friday afternoon and will meet again Sunday morning.

The annual banquet honoring Past-Presidents of the Association is scheduled for Saturday night.

OFFICER'S CONFERENCE SCENE

More than 90 physicians, medical society executives and guests attended the Second Annual County Society Officer's Conference of the Missouri State Medical Association on January 11 and 12 at the Ramada Inn, Jefferson City.

Some of the program participants and others attending are shown in the photographs on this page.

Upper left — Dr. Max Franklin (left), St. Louis, MSMA Treasurer, and Dr. Hubert Ritter (right), St. Louis, President of the St. Louis Medical Society, visit with Mr. Kenneth Bopp, Director of the Missouri Comprehensive Health Planning Agency, a conference speaker.

Upper right — Dr. Joseph Fisher (left), St. Joseph, Council Chairman, and Mrs. Ray McIntyre, wife of the MSMA Executive Secretary, welcome Representative Ron Reed, St. Joseph, a conference participant.

Right — Dr. Gerald L. Miller, Kansas City, MSMA Public Service Committee Chairman, (right), greets banquet speaker Mr. Robert M. White II, Mexico.

Bottom right — (Left to right), AMA Delegates Dr. Hector W. Benoit, Jr., Kansas City, and Dr. Arthur W. Neilson, St Louis, visit with Mrs. Neilson.

Bottom left — MSMA Woman's Auxiliary President Mrs. E F. Butler of St. Joseph chats with MSMA President Dr. David N. Kerr, St. Louis.

Left — Dr. Wilson Ferguson, Sikeston, Immediate Past-President of the Semo Medical Society, addresses the conference Sunday morning.

GEORGE A. ULETT, M.D., ***Director***
Missouri Division of Mental Diseases

Progress in Missouri's Mental Health Program Through Cooperation Between Public and Academic Resources

Special Article

In a discussion of papers presented in 1962 at an APA Psychiatric Research Symposium, I reported on the "Bliss Story." It was a brief résumé of the impact of a university-sponsored research program upon a public mental hospital.[1] This is a brief review and sequel to that story.

In St. Louis in the mid-30's, a dedicated general practitioner, Dr. Malcolm A. Bliss, saw the need for a separate psychiatric pavilion in the city's general hospital program. With the help of WPA funds, the Malcolm A. Bliss Psychopathic Hospital was completed in 1938.

However, as so often happens in a municipal government, the parent city, having given birth to this edifice, returned to its fiscal struggles leaving no adequate provisions for staff, equipment or maintenance. This psychiatric unit, which was attached administratively to one of the city's general hospitals yet separate physically and, hence, easily forgotten, was regularly bypassed in all matters from housekeeping to personnel. Its walls had not received any freshening of paint since the day it was opened and broken furniture was patched or discarded, but never replaced. The nurses were protected from patients on each of the six hospital wards by prison-like bars. There was overcrowding, widespread use of restraints and an overwhelming evidence of chronicity.

Over a period of 15 years, adequate financial support for a good clinical program was never available. Without some kind of outside assistance, the problem was insurmountable.

In 1953, the Department of Psychiatry at Washington University School of Medicine moved a full-time research team into the hospital. A long-vacant research wing was reclaimed from janitors and watchmen.

During the next two years, this research group became convinced that Bliss Hospital had an excellent potential as a research and training hospital. A combined residency training program was developed with the Department of Psychiatry, making available university appointments for professional staff. This affiliation made it possible to augment, with university funds, the municipal civil service salaries which were far below minimally adequate levels for a full-time staff.

Seven years later, research was solidly established at what is now known as the Malcolm Bliss Mental Health Center. There were now five full-time and several part-time staff psychiatrists involved in research. A three-year approved psychiatric residency program had 18 physicians in training. There were seven research and four clinical psychologists. In this period, the staff had published a total of more than 100 scientific papers. A grant from the Health Facilities Branch of the National Institutes of Health more than doubled the research space and included a biochemical laboratory.

A good clinical treatment program was developed, and 85% of the patients were benefitted sufficiently to be promptly returned to the community. The wards of the hospital had a new decor, bars and restraints had disappeared and the hospital was racially integrated. The outpatient clinic, staffed by senior psychiatric residents, had more than 6,000 patient visits a year. A special Social Maladjustment Unit worked closely with law enforcement agencies, and a new unit was developed for the treatment and study of alcoholism.

As a member of that initial research team and, later, as director at Malcolm Bliss Hospital, I clearly remember the day I first set foot in that neglected psychiatric hospital and how, due primarily to a strong academic affiliation, the program was able to arise from the shambles like a phoenix-bird.

A decade later, a turn of the wheel of political fortunes brough involvement in a remarkably similar situation, only this time at the state level. In 1962, our state operated one of the nation's most neglected mental health programs.

At that time in Missouri, there were five state hospitals that were about 50% overcrowded with nearly 11,000 patients. Two school-hospitals for the retarded had long waiting lists. The major problem to be faced was lack of qualified professional staff. Unless this problem were solved, little progress could be made. At that time, there were less than two dozen psychiatrists in the Division, only one quarter of whom were Board Certified. None of the state hospitals had a university-affiliated residency training program, although the St. Louis State Hospital had a small program and some staff with clinical appointments at a local medical school. Nowhere in Missouri did there exist any substantial academic affiliation with these neglected state facilities.

It is no secret that in the United States everyone believes medical school medicine to be "first class," while state hospital medicine is surely at the other end of the spectrum. It is commonly believed that physicians who must vacate their practice by reason of alcoholism, drug addiction or a forced retirement on the grounds of physical or mental incapacity make up the staff of public hospitals caring for the mentally ill. And to further weaken the staff, in most of the states today, persons employed in the state hospital system give only a token of their efforts to their public charges, but "maintain their professional respectability" and also their bank accounts by a moonlit private practice. Excuses told to me were "You can't live on what the state pays you" or "I have to maintain my psychiatric skills by doing some private practice." Thereby, it was implied that state hospital patients were somewhat less than worthy of the kind of psychiatric treatment available to the mentally ill who could pay their own bills. Missouri soon outlawed such moonlighting practices and came to regard public mental health as a full-time challenge worthy of the greatest effort.

The solution to Missouri's mental health problems clearly was that of obtaining a sufficiently large cadre of trained psychiatrists willing to devote their full energies to changing the Division's program from custodial care to treatment. So, with the Bliss story as a model, we turned to academic resources for help. We decided to name only qualified psychiatrists who were legally and administratively responsible for patient care as leaders of the treatment team. Well-trained professionals for these jobs could be obtained only through academic affiliation. As a by-product, such an affiliation with "first class" medical-school programs also would serve to raise the image of public hospital psychiatry.

About this time, there was beginning to be much talk about community mental health. The touted pattern seemed to be that of comprehensive centers arising on the basis of local community partnership in towns and counties in which the population expressed the wish and desire for locally-based mental health services.

A survey of Missouri's resources,[2] however, clearly indicated that such an approach, if taken as an initial step, was doomed to failure. There simply were no professional mental health workers outside of the major metropolitan areas of Kansas City, St. Louis and Columbia. Also, it had been demonstrated by experiences with municipal support for community mental health services in both Kansas City and St. Louis that even the largest of city governments was unable, for whatever reasons, to support mental health services at an acceptable level of patient care.

Missouri, like other Midwestern states, was woefully short of trained professionals, both public and private. We had only about 200 psychiatrists in the entire state. On every hand, one heard the lament, "You "can't get enough psychiatrists for full-time public programs. Therefore, you must use nonprofessionals to treat your patients and install nonmedical mental hospital superintendents." Such alternatives are unacceptable if the goal is to upgrade patient treatment and bring state hospital psychiatry ever closer to first-class medical practice. As one of our superintendents put it, "Such plans may free superintendents for medical duties—but in some other state!"

So, we tailored a plan to meet the specific needs of Missouri, taking into account our state's resources and deficiencies. To us, the essence of a good community mental health program is intensive psychiatric treatment in a well-staffed hospital. In our experience, a well-staffed psychiatric intensive treatment facility can take care of 90% of serious mental illness in a matter of a few weeks and return the patient to the home community. The geographic location of the programs was less crucial than the content. To "build empty school houses without any teachers in everybody's backyard" would accomplish nothing. Missouri has good roads and most people have cars or neighbors with cars, so the necessity of driving to the hospital was of little consequence. Often, also, treatment is better accomplished when the patient is removed from too close contact with his relatives. In Missouri, we have not had great difficulty in gearing patients back into their home communities after a two- or three-week period of hospitalization. We have worked toward maintaining contact with the community and with the local family physician and have already demonstrated that traveling clinics can provide after-care and consultation services until more convenient, permanent satellite clinics are developed. And so it was that the decision was made to establish three regional community mental health centers across the center of our state within reasonable traveling distance of, and with each responsible for, one third of the state's population.

To insure that these units would be amply staffed, each was built in connection with a university medical school department of psychiatry. In two instances, our new hospitals became the home of and furnished the major teaching facility for that department's operation. Our Division has entered actively into the support and funding of university residency-training programs. Our superintendents obtained academic rank in university departments, and our professionals became university teaching staff. Financially, the universities still operated their own teaching departments while our Division was fiscally responsible for total patient care. The professional staff of both agencies blended into a single program of first class patient care in a university setting and with an emphasis on teaching and research.

It was our hope and, indeed, it has been our experience that these training programs not only would amply serve to staff the three state-operated and -owned major community mental health centers, but, also, would serve as an example and stimulus to local communities to develop other community mental health centers in Missouri with these three prototype units supplying know-how and assistance, especially for professional staffing. Also, these three units would spark an improvement in the five state hospitals, by both assisting with the burden of admissions and by supplying professional staff from the residency training programs.

This article outlines the unusual cooperative relationship between the Missouri Division of Mental Diseases and the University of Missouri and Washington University which made possible a significant improvement in the care of the mentally ill in Missouri. The author describes this result as "the most exciting state mental health program in the country." Dr. Ulett also is Chairman and Professor, Department of Psychiatry, Missouri Institute of Psychiatry, University of Missouri School of Medicine-St. Louis. He originally presented this paper at the 20th Mental Hospital Institute of the American Psychiatric Association on Oct. 3, 1968 in Washington D. C.

All of the above has come to pass. Five outstate communities are now engaged in local community mental health center projects, and others are in early planning stages. Staffing of these units with qualified psychiatric staff has become an assured possibility from the Division's training program. In all, some 20 to 25 community mental health centers are planned for Missouri. At least half of these will be state-operated satellite centers and extensions of the state hospitals, all of which are now rapidly moving to the geographic section plan. Such sectional planning in Missouri is envisioned as the development of each state hospital into a multi-unit, aggregate of smaller community mental health centers, each being responsible for a definite geographic area. In the area for which each center is responsible, there will be established a community mental health unit furnishing outpatient and consultation services locally, but using the hospital-based center for inpatient services.

Other changes have occurred in the state hospitals. A new building on the grounds of the St. Louis State Hospital has become the Missouri Institute of Psychiatry and the home of yet another Division-based Missouri University Department of Psychiatry. This department has incorporated the older St. Louis State Hospital residency-training program into a five-year career residency program with 52 residents now in training. The Missouri Institute of Psychiatry building is a unique research institute with research wards and supporting laboratories dedicated to a study of those problems that are found in public psychiatric hospitals. Support for these research wards include a variety of laboratories, a library and other facilities, all operated by University personnel and assisted by research grants to the University. Two new floors under construction will house research units for neurology, alcoholism, drug abuse and the Division of Mental Diseases' computer facility. The latter will be the hub of a statewide electronic data processing network which will make possible not only a complete computerization of administrative, managerial and hospital information systems, but also a completely computerized clinical and patient care system, the Missouri Standard System of Psychiatry (SSOP). Our close tie with academic programs, especially that of the computer center at the University of Missouri School of Medicine, has made such total computerization of the state program a realistic possibility.

A fifth affiliated academic program was developed in yet another of our state hospitals at Nevada. This is the first, five-year, career, psychiatric training program in the nation designed to train licensed Doctors of Osteopathy for Board Certification in Psychiatry (AOA Board). In these five academic-affiliated programs, the Missouri Division of Mental Diseases now supports the training of 120 psychiatrists. These, together with the full-time psychiatrists employed at our institutions, bring the number of psychiatrists engaged in public psychiatry in Missouri to more than 200, a tenfold increase in six years and an adequate supply for all of our program needs. Half of the psychiatric residents in training are in our career program, with two years of obligated service to our public institutions. With the excellent programs being developed in our state and with a realistic wage scale, we are finding that most graduates of this training program remain in public service.

Academic affiliation has brought other rewards to the state program. Grants through the University have assisted in the support of a new statewide alcoholism and drug-addiction program which includes service, training and research. Affiliation with the University in state-funded work-study programs has enabled us to gain nine times the number of social workers we had in our state program ten years ago and is now supplying us with teachers trained in special education for the five new residential treatment centers for emotionally disturbed children, the first of which is currently under construction.

Overcrowding has all but disappeared from Missouri's state hospitals. The inpatient census has dropped 40%, with most of that decrease occurring in the last two years. At the same time in the last decade, the work load in terms of numbers of patients admitted and treated in our psychiatric facilities has increased more than 500%!

To complete the picture, let me point out that our Division also is responsible for and has a strong interest in programs for the mentally retarded. All of our career psychiatric residents have a six-months' rotation through one of our major institutions for the retarded for training and experience in this field. Such training, we believe, is important in the experience of every psychiatrist. The superintendents of these state school-hospitals, like our other superintendents, are Boarded psychiatrists, and for them, too, university affiliation is a key to successfully coordinating their facilities for residency training. They also are developing other academic affiliated programs for research and for training social workers and teachers in special education.

Our community efforts in the field of retardation took an exciting turn when Governor Warren E. Hearnes recommended and the Missouri Legislature funded the construction of nine regional clinics which are now bringing inpatient, outpatient and day care retardation services to multi-county communities throughout the state. University training programs are looking to these clinics as unique opportunities for fieldwork experience.

As you can see from all of the foregoing, a University-State agency mental health partnership has been the major strength of the program of the Missouri Division of Mental Diseases. Such academic affiliation enabled Missouri to develop what those of us working in the program feel to be the most exciting state mental health program in the country.

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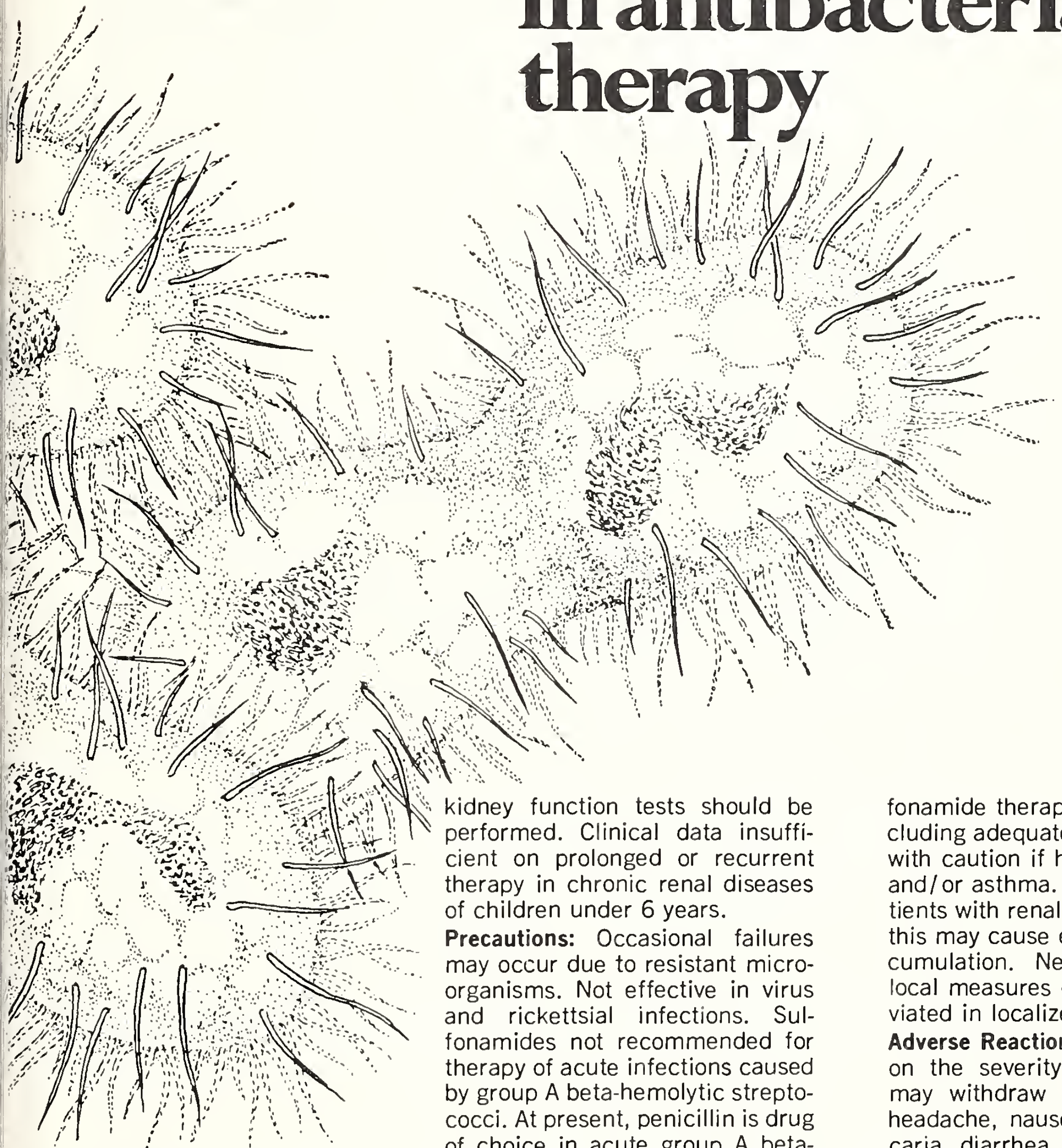

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Royal O. Cooper Joins MSMA Executive Staff

Royal O. Cooper

Royal O. Cooper, former State Purchasing Agent for Missouri, has joined the headquarters office staff of the Missouri State Medical Association.

MSMA Executive Secretary Raymond McIntyre said that Cooper, who will assist in legislative contact work, comes to the Association with an excellent background in political science and seven years' actual experience in public administration and state government. Cooper also will work with various MSMA committees and will help in maintaining liaison between the State Association and county medical societies located throughout the state and with numerous allied health organizations and groups.

A native of Nevada, Mo., Cooper is a graduate of the University of Missouri where he received his B.S. Degree in Public Administration in 1955. He did graduate work in political science and served as a graduate assistant to the chairman of the political science department.

He was appointed Assistant Purchasing Agent for the state of Missouri by Gov. James T. Blair in 1958 and Acting State Purchasing Agent by Gov. John M. Dalton in 1961. Previous to these appointments, he was claims representative for the Equitable Life Assurance Society of the United States.

In 1965, Cooper resigned as Acting State Purchasing Agent and organized his own commodity brokerage company in Jefferson City. In 1966, he joined the Clayton Brokerage Company and maintained offices in Jefferson City and Mexico, Mo.

Cooper assumed his new duties with the Medical Association on January 6.

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Notes of interest from Here . . . . and There

"We salute you, **Dr. Guy D. Callaway,** as a gentleman, a Jerseyman, as an eminent physician, as an astute businessman." These are the opening words in a special tribute to Dr. Callaway which appeared in the 1968 issue of *The Missouri Jerseyman* which is dedicated to him. Dr. Callaway, who has been named "Our Missouri Jerseyman, 1968" by the Missouri Jersey Cattle Club, is credited with building one of the better Jersey herds in the state. The article reviews his life "from a beginning on a small farm near Seymour, Mo. to a partnership in the largest Medical Clinic of its kind in Missouri . . ." and gives highlights of his 64 years' experience raising Jersey cattle. Dr. Callaway formed the Smith-Glynn-Callaway Clinic in Springfield in 1925 with **Drs. Wallis Smith, Wilbur Smith** and **Robert Glynn.** He was presented a pin for 50 years of service to the medical profession at the 1967 Annual Session of the MSMA.

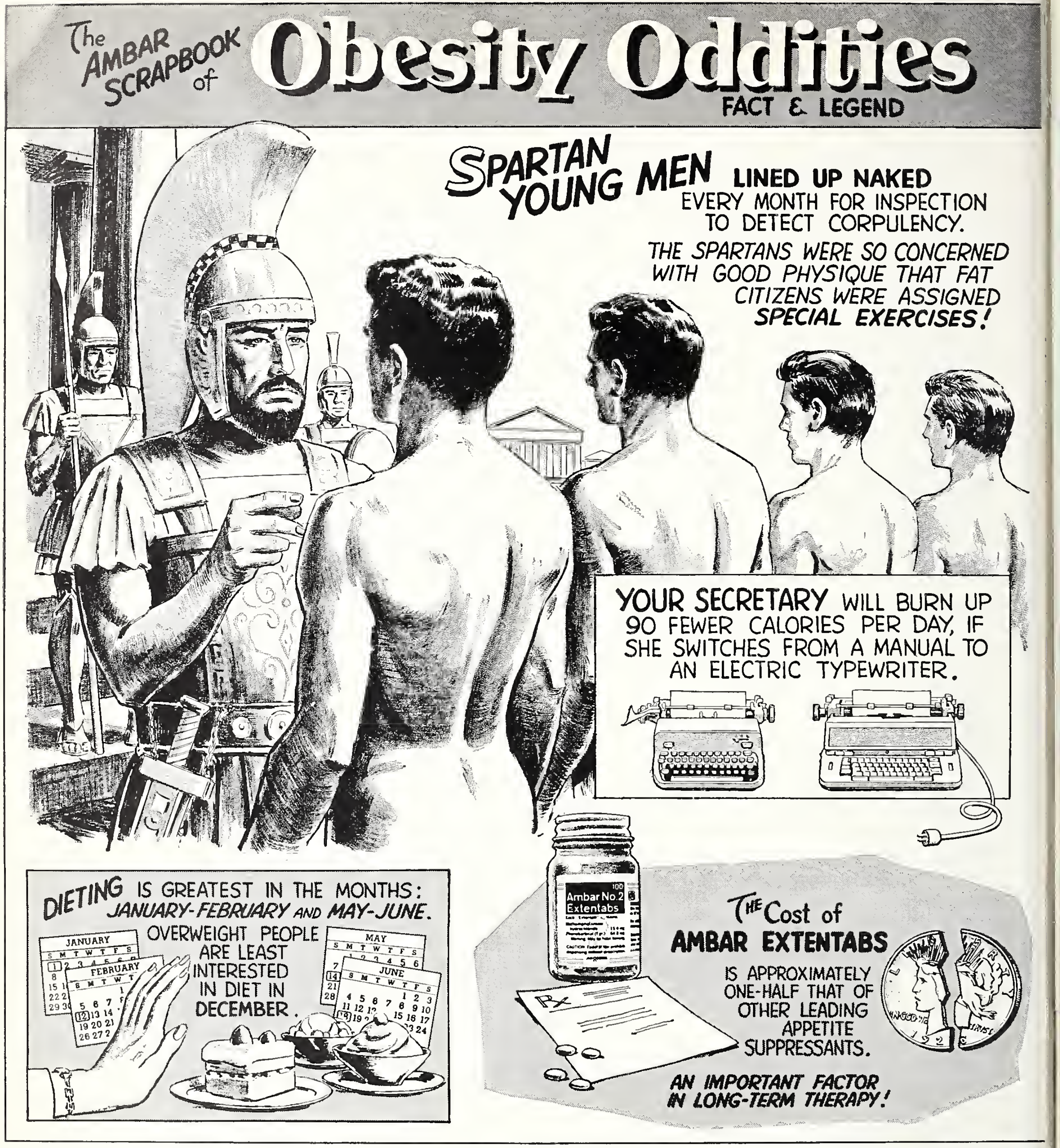
Dr. Bruce Everist of Ruston, La. was named recipient of the Citation of Merit by the Board of Governors of the **University of Missouri Medical Alumni.** Dr. Everist received his preliminary medical degree from the University of Missouri in 1942.

Dr. George E. Gantner, Jr., associate professor of pathology at the St. Louis University School of Medicine, has been appointed St. Louis County's first chief medical examiner, the job that was created in the county charter adopted by voters in April, 1968. The position replaced that of the elected coroner when the term of incumbent Coroner Raymond I. Harris expired on Dec. 31, 1968. The charter provides that the chief medical examiner be a licensed physician experienced in forensic pathology. Dr. Gantner has served as a coroner's pathologist for the county since 1958.

Dr. Durand Benjamin, M.D., St. Louis, was reelected president of Alexian Brothers Hospital Medical staff at the organization's annual staff banquet held at the Hospital on Dec. 17, 1968. Other officers elected for 1969 are **Drs. Patrick C. Hogan,** vice-president, and **Porfirio M. Tiongson,** secretary-treasurer. There are more than 140 members of the medical staff. The Hospital began its 100th anniversary year on December 7, 1968.

Dr. H. J. Freiheit has been named president of the medical and dental staff at Lutheran Hospital in St. Louis. Other newly-elected officers are **Dr. Ralph Berg,** president-elect, and **Dr. Eugene V. Henschel,** vice-president.

Dr. Emma A. Thompson, one of the first women doctors in Missouri who practiced medicine in Breckenridge for more than 40 years, observed her 100th birthday on Nov. 2, 1968. Dr. Thompson, who has received many honors in her lifetime for services to her community and profession, has received her 50 years-of-service pin from the MSMA. She was named "Missouri Mother of the Year" in 1949. She now resides in Columbia.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Distinguished Service Award to Dr. Neal

In recognition of his 56 years devoted to medicine and medical education, the Southern Medical Association has awarded its Distinguished Service Award for 1968 to Dr. M. Pinson Neal, Sr., Emeritus Professor of Pathology at the School of Medicine, University of Missouri-Columbia.

The award is given to members who make outstanding contributions to the advancement of medical science or the Association or both. In size of membership and prestige, the Association is second only to the American Medical Association. Its membership is comprised of more than 18,000 physicians in 16 states, the armed forces and the District of Columbia.

Dr. Neal has served in all important offices of the organization, including its presidency in 1942.

At age 81, Dr. Neal seldom misses a day at his office at the University Medical Center where he continues to give special lectures and assists in the teaching laboratories.

He began his long career at the University in 1922 when the School of Medicine offered a two-year basic science curriculum in classrooms in McAlester Hall. In those days, 40 medical students were admitted in each class for studies in anatomy, histology, embryology, physiology, physiological chemistry, medical bacteriology, pathology and introductory courses in minor surgery and physical diagnosis. The medical students then transferred to other medical schools for their two years of clinical training.

Although the medical school classes were limited, there sometimes were as many as 700 other students on campus who took some of the courses offered in the biomedical sciences.

"Today's students are much better prepared when they enter medical school, but the boys of 40 years ago applied themselves industriously and utilized the opportunities and equipment they had to a very fine degree," Dr. Neal commented.

Commenting on the superior modern-day equipment used in medicine, Dr. Neal pointed out that "95% of the equipment in the Medical Center has just been developed in the past 15 years. Some of it was never dreamed of even five years ago.

Dr. M. Pinson Neal

"This plant is one of the most superior in the country as far as equipment and personnel are concerned," he continued, "but whereas in 1952-1953 the whole medical school budget—for everything—was $200,000, the operating budget now runs into several million dollars."

Dr. Neal is one of the Mid-Missourians who fought for years for a four-year School of Medicine. He tirelessly spoke to PTA organizations, service clubs, medical groups and others. However, he gives most of the credit to the late Dr. Arthur R. McComas of Sturgeon for his leadership in persuading the state legislature to enlarge the medical school at Columbia.

The campaign started in the late 1920's and, finally, by 1931, the Board of Curators approved the addition of a third year class for medical students. There were six students in that class, Dr. Neal recalls. By the following year, however, funds were again restricted and the school had to return to a two-year curriculum.

Again in the late 1930's, another campaign was started, but it was not until the 1951-1952 General Assembly of the Legislature that approval was given for funds for the Medical Center. It went into operation in the fall of 1956.

Dr. Neal served as chairman of the Department of Pathology from 1922 to 1954 and as acting dean of the School of Medicine in 1951-1953. He became an Emeritus Professor on a part-time basis in 1958. His "retirement" was official in 1963.

A native of Heflin, Ala., Dr. Neal attended the University of Alabama and received his M.D. degree in 1912 from University College of Medicine, Richmond, Va., which later consolidated with the Medical College of Virginia. A disastrous fire occurred during his sophomore year in medical school and for two years classes were held in a cold, drafty former tobacco factory. Of the 39 medical students in the class, five got active tuberculosis within the next year as a result of that experience. Two of them died.

Dr. Neal began a teaching career. As one of those who contracted tuberculosis, however, he entered a sanitarium and research laboratory at Ashville, N. C., for treatment and worked there in the laboratory while he was a patient.

After he was cured, he served in the U. S. Army Medical Service in France for two years during World War I and received a citation from General Pershing for his service to troops in the field. After the war, he returned to teaching pathology at Northwestern University. From Northwestern, he went to the State University of Iowa from 1920 to 1922, when he joined the University of Missouri faculty.

Dr. Neal is a Diplomate of the American Board of Pathology and is the author of more than 50 scientific papers. His latest paper, prepared in October, 1968, for presentation to the Missouri Society for the History of Medicine, is on the subject, "The Autopsy: A Service and a Teaching Discipline."

Before Dr. Neal came to the University of Columbia, one autopsy had been performed in Boone County the previous year. While he was on the staff of University hospitals, he performed more than 1,300 autopsies in Missouri, often taking his students along so they could learn from the postmortem examination first-hand knowledge of causes of death.

Among the hundreds of medical students he has taught in laboratories at McAlester Hall and later at the University Medical Center, there are many with whom Dr. Neal keeps up a large correspondence. At Homecoming and on M.D. Day on campus, he is surrounded by doctors who come back to renew their friendships.

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Side Effects: *Gastrointestinal*—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. *Skin*—maculopapular and erythematous rashes; exfoliative dermatitis; photosensitivity; onycholysis, nail discoloration. *Kidney*—dose-related rise in BUN. *Hypersensitivity reactions*—urticaria, angioneurotic edema, anaphylaxis. *Intracranial*—bulging fontanels in young infants. *Teeth*—yellow-brown staining; enamel hypoplasia. *Blood*—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. *Liver*—cholestasis at high dosage.

Upon adverse reaction, stop medication and treat appropriately.

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Preliminary Program
111th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

Chase-Park Plaza Hotel, St. Louis — March 20-23, 1969

Thursday, March 20

11:00 AM Registration of Delegates.

1:30 PM House of Delegates Meeting, opening session.

4:30 PM Reference Committee Meetings.

Friday, March 21

8:00 AM Registration.

9:00 AM *New Hope for the Failing Heart.* (Sponsored by the Missouri Heart Association.)
Moderator: Albert M. Estes, M.D., Cape Girardeau.
Panel Participants:

1. *The Surgical Approach,* Denton A. Cooley, M.D., Houston, Texas.
2. *The Medical Approach,* Robert D. Leachman, M.D., Houston, Texas.

9:00 AM Panel. (Sponsored by the MSMA Committee on Medical Economics.)
Moderator: Rae W. Froelich, M.D., Lebanon

1. *Medicaid Program in Missouri,* Mr. Proctor N. Carter, Director, Division of Welfare, Jefferson City.
2. *The Responsibilities of Physicians as Medical Staff Members,* Otto Arndal, M.D., Assistant Director, Hospital Accreditation Program, Chicago.

10:30 AM Intermission to view exhibits.

11:00 AM Continuation of Medical Economics Program.

3. *Liability of Physicians in Completion of Staff Duties,* Norris H. Allen, Attorney, St. Louis.
4. *Corporate Practice Today and Tomorrow,* William A. Boles, Attorney, St. Louis.
5. *Current Tax Developments of Special Interest to Medical Practitioners,* Joseph R. McKenzie, Internal Revenue Agent, St. Louis.

11:00 AM *Management of Endometriosis,* George H. Gardner, M.D., Chicago. (Sponsored by the MSMA Committee on Maternal Welfare.)

11:00 AM *Inhalation Therapy for the Community Hospital* (Sponsored by the Missouri Society of Anesthesiologists)
Moderator: Harold J. Freiheit, M.D., St. Louis.
Panel Participants:
Paul R. Dumke, M.D., Director, Department of Anesthesia and Inhalation Therapy, Henry Ford Hospital, Detroit.
John F. Schweiss, M.D., Director, Department of Anesthesia and Inhalation Therapy, Cardinal Glennon Memorial Hospital, St. Louis.
Marshall T. Metzgar, M.D., Assistant Professor, Department of Anesthesia, University of Missouri School of Medicine, Columbia.
Mr. James Whitacre, Technical Director of the School of Inhalation Therapy, University of Missouri School of Medicine, Columbia.

12:00 NOON Fifty-Year Club Luncheon
Committee on Maternal Welfare Luncheon
General Luncheon: Guest Speaker, Robert L. Burnes, Executive Sports Editor, *St. Louis Globe-Democrat.*
University of Missouri Alumni Luncheon.

2:00 PM Program sponsored by the Missouri State Surgical Society.
Moderator: Cyril J. Costello, M.D., St. Louis.
Panel Participants:
Management of the Patient With Cancer, Thomas F. Nealon, Jr., M.D., New York, N. Y.
Discussant: John S. Spratt, Jr., M.D., Columbia.

2:00 PM *Sex Education of the Pediatric Age Group* (Sponsored by the Missouri Chapter, American Academy of Pediatrics).
Moderator: George D. Comerci, M.D., Assistant Professor of Pediatrics, Cardinal Glennon Memorial Hospital, St. Louis.
Panel Participants:
Anthony Labrum, M.D., Associate Professor of Gynecology, St. Louis University School of Medicine, St. Louis.
Robert J. Corday, M.D., Child Psychiatrist, Cardinal Glennon Memorial Hospital, St. Louis.
(Additional speakers to be announced.)

2:00 PM *Urinary Tract Infection in Childhood—From Origin to Correction*, Richards P. Lyon, M.D., Berkeley, California. (Sponsored by the Missouri Federation of Urologists.)

3:30 PM Intermission to view exhibits.

4:00 PM House of Delegates, second session.

5:30 PM Missouri State Medical Foundation Annual Meeting.

6:00 PM Reference Committees.

Saturday, March 22

8:00 AM Registration.

9:00 AM *Program on Otolaryngology*. (Sponsored by the Department of Otolaryngology, Washington University School of Medicine.)

Moderator: Joseph H. Ogura, M.D., St. Louis.

Panel Participants:
Malcolm Stroud, M.D., St. Louis
Lindsay Pratt, M.D., St. Louis
Hugh Biller, M.D., St. Louis
Joseph H. Ogura, M.D., St. Louis

9:00 AM Medical Symposium (Sponsored by the Department of Internal Medicine, St. Louis University School of Medicine.)

Moderator: Thomas F. Frawley, M.D., St. Louis.

1. *Newer Techniques in Diagnosis Using Radioisotopes*, Robert M. Donati, M.D., St. Louis.
2. *Current Management of Patients With Chronic Renal Failure: Conservative Programs, Dialysis, Transplantation*, John J. Garrett, M.D., St. Louis.
3. *New Concepts in Hypertension*, James B. Lee, M.D., St. Louis.
4. *Allergy Emergencies*, Raymond G. Slavin, M.D., St. Louis.
5. *Value and Dangers of Submaximal and Maximal Stress in the Detection of Coronary Artery Disease*, Edwin E. Westura, M.D., St. Louis.

9:00 AM *The Changing Role of Pathology in Medical Practice* (Sponsored by the Department of Pathology, University of Missouri School of Medicine, Columbia.)

Moderator: Vincent P. Perna, M.D., St. Louis.

1. *The Concept of a Modern Academic Department. Teaching: Undergraduate, Graduate and Continuing Education*, D. A. Senhauser, M.D., Columbia.
2. *Service: Computerized Laboratory Data System—Its Clinical Potential*, James T. Packer, M.D., Columbia.
3. *Research: Multiphasic Screening, Does It Have a Place in General Medicine Practice?*, H. J. Van Peenan, M.D., Columbia.

10:30 AM Intermission to view exhibits.

11:00 AM *The Medical Report—Use and Abuse* (Sponsored jointly by the MSMA Committee on Industrial Health and Medical-Legal Committee.)

Moderator: Mr. Rexford H. Caruthers, St. Louis.

1. *Cardiac Problems Related to Medical-Legal Affairs*, Maxwell G. Berry, M.D., Kansas City.
2. *Medical Reporting From a Neurosurgical Standpoint*, Keith Whittaker, M.D., Kansas City.
3. *Orthopedic Problems of Medical-Legal Importance*, Lee T. Ford, M.D., St. Louis.

(Additional speakers to be announced.)

11:00 AM *Innovations in Medical Care—What's RMP To You?* (Sponsored by Missouri Regional Medical Program and Bi-State Regional Medical Program)

Co-Moderators—Arthur E. Rikli, M.D., Columbia, MRMP and William Stoneman, III, M.D., St. Louis, Bi-State RMP.

1. *Introduction and Summation*, Glenn O. Turner, M.D., Springfield.
2. Subject: *How to Get More Medical Mileage Out of Yourself*, Representatives from both programs.

11:00 AM *Drug Abuse and Drug Addiction* (Sponsored by the Missouri Academy of Psychiatry.)

Moderator: George J. Lytton, M.D., Kansas City.

1. *Drug Abuse as a Public Health Problem*, Ronald J. Catanzaro, M.D., Columbia.
2. *Drug Abuse in Private Medical Practice*, Edmund V. Cowdry, Jr., M.D., St. Louis.
3. *The Drug Scene*, Donald B. Louria, M.D., New York, N. Y.

12:30 PM General Luncheon: Guest Speaker, Durward G. Hall, M.D., U. S. Representative, Washington, D. C.

2:30 PM *Glaucoma as a Problem in General Medicine*. (Sponsored by the Missouri Ophthalmological Society, Inc.)

(Panel Participants and Moderator to be announced.)

2:30 PM *Symposium on Malignancies Excluding the Lymphomas.* (Sponsored by the Missouri Society of Internal Medicine.)
Moderator: William A. Knight, M.D., St. Louis.
1. *Chemotherapy of All Malignant Diseases,* Edward W. Reinhard, M.D., St. Louis.
2. *Immunologic Defects in Patients With Malignancies and Superinfections,* Donald B. Louria, M.D., New York, N. Y.
3. *Genetic Factors Implicated in Malignancies,* William S. Sly, M.D., St. Louis.

2:30 PM *Panel* (Sponsored by Missouri State Sanatorium, Mt. Vernon)
Moderator: Charles S. Christianson, M.D., Chief of Internal Medicine.
1. *Medical and Surgical Management of Pulmonary Histoplasmosis,* John Polk, M.D., Springfield, Chief of Surgical Service, and C. A. Brasher, M.D., Medical Director.
2. *Extra-Thoracic Manifestations of Carcinoma of the Lung,* T. Ertan, M.D., Staff Physician.

Panel Participants (Staff Physicians):
P. A. Reddy, M.D.
M. N. Atay, M.D.
E. Kozdereli, M.D.

4:00 PM Intermission to view exhibits.
6:30 PM Social Hour for those attending the Banquet.
7:15 PM Annual Banquet in Honor of Past Presidents of MSMA.
Guest Speaker, Timothy Hays, Mayor of Whoopup, Missouri.
Dancing until Midnight.

Sunday, March 23

7:30 AM House of Delegates Meeting, breakfast and final session.

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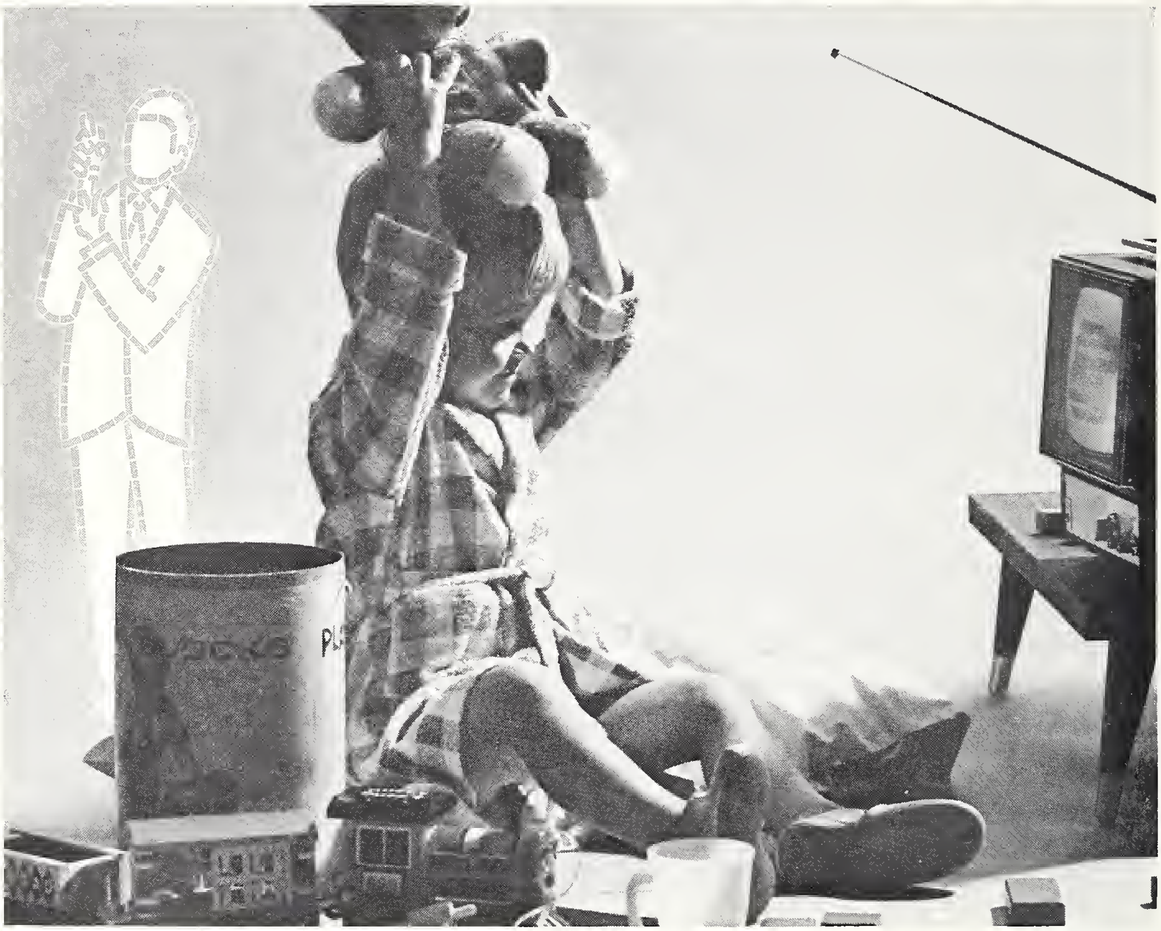

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Indications: Streptococcus, pneumococcus, and gonococcus infections; infections caused by sensitive strains of staphylococci; prophylaxis of streptococcus infections in patients with a history of rheumatic fever; and prevention of bacterial endocarditis after tonsillectomy and tooth extraction in patients with a history of rheumatic fever or congenital heart disease.

Contraindication: Penicillin hypersensitivity.

Warnings: In rare instances, penicillin may cause acute anaphylaxis which may prove fatal unless promptly controlled. This type of reaction appears more frequently in patients with a history of sensitivity reactions to penicillin or with bronchial asthma or other allergies. Resuscitative drugs should be readily available. These include epinephrine and pressor drugs (as well as oxygen for inhalation) for immediate allergic manifestations and antihistamines and corticosteroids for delayed effects.

Precautions: Use cautiously, if at all, in a patient with a strongly positive history of allergy.

In prolonged therapy with penicillin, and particularly with high parenteral dosage schedules, frequent evaluation of the renal and hematopoietic systems is recommended.

In suspected staphylococcus infections, proper laboratory studies (including sensitivity tests) should be performed.

The use of penicillin may be associated with the overgrowth of penicillin-insensitive organisms. In such cases, discontinue administration and take appropriate measures.

Adverse Reactions: Although serious allergic reactions are much less common with oral penicillin than with intramuscular forms, manifestations of penicillin allergy may occur.

Penicillin is a substance of low toxicity, but it possesses a significant index of sensitization. The following hypersensitivity reactions have been reported: skin rashes ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; and reactions resembling serum sickness, including chills, fever, edema, arthralgia, and prostration. Severe and often fatal anaphylaxis has occurred (see Warnings). Hemolytic anemia, leukopenia, thrombocytopenia, and nephropathy are rarely observed side-effects and are usually associated with high parenteral dosage.

Administration and Dosage: Usual dosage range, 125 mg. (200,000 units) three times a day to 500 mg. (800,000 units) every four hours. For infants, 50 mg. per Kg. per day divided into three doses.

See package literature for detailed dosage instructions for prophylaxis of streptococcus infections, surgery, gonorrhea, and severe infections.

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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GEORGE C. KAISER, M.D., HENDRICK B. BARNER, M.D.,
VALLEE L. WILLMAN, M.D. *and* C. ROLLINS HANLON, M.D.,
St. Louis

Electrocardiographic Manifestations of Cardiac Pacing

An increasing number of patients with complete heart block are being treated by implantable pacemakers as the treatment of choice. Improvement in function and prolongation of life has been quite rewarding.[1–4] The care of the patient, however, does not end with the implantation of the device. Close continued observation is required to detect changes in performance which may indicate a need for changing or adjusting the device.[5–7]

In many instances, this observation is best accomplished by the referring physician rather than at the center where the procedure was performed. The electrocardiogram is one of the primary methods of assessment in such patients. An understanding of the electrocardiographic patterns and responses of various types of pacemakers is important in the follow-up of patients with implantable pacemakers. This report presents selected typical electrocardiograms of patients with implantable pacemakers of the various types of pacemakers currently employed.

Types of Pacing

There are three types of electrical pacemakers commonly used in this country: they are fixed rate, synchronous and demand.

Fixed Rate

The fixed rate pacemaker delivers an electrical stimulus to the ventricle at a rate which does not vary. The frequency and magnitude of the stimulus may be constant, having been set by the manufacturer, or they may be altered directly by manipulation of the pacemaker or indirectly by a magnetic switch or radio-frequency stimulation. The principle of a fixed output delivered at a set rate is common to all pacemakers of this type. The majority of patients respond

In many instances, required observation of a patient with an implantable pacemaker is best accomplished by the referring physician rather than at the center where the procedure was performed. An understanding of the electrocardiographic patterns and responses of the pacemaker, of course, is important in the follow-up of the patient. This report presents and describes selected, typical electrocardiograms of patients with implantable pacemakers of the various types currently employed. **The authors are from the Department of Surgery, St. Louis University School of Medicine; Unit II Surgical Service, Veterans Administration Hospital; and Unit II Surgical Service, St. Louis City Hospital.** **This work was supported in part by USPHS Grant HE-06312, The John A. Hartford Foundation, Inc. and the Missouri-St. Louis Heart Association.**

favorably to this type of pacing; it is the most commonly employed type of pacing and has been used for the longest time. Patients treated with these pacemakers have a fixed ventricular rate. Although the rate does not increase with exercise, it is faster than the slow fixed idioventricular rate of complete heart block. It has been demonstrated both clinically and experimentally that a fixed rate of between 60 and 90 beats per minute allows a high level of physical performance.[8-10] In these patients, increase in cardiac output comes about by an increase in stroke volume and is not dependent upon a change in rate. The patients with fixed rate pacemakers are able to accommodate to stress and exercise by a change in stroke volume. The fixed rate pacemakers work well clinically in most patients with heart block, particularly in the elderly who require limited increases in their cardiac output.

Synchronous

Synchronous pacemakers coordinate atrial and ventricular contractions. While this may not be necessary in many patients with heart block, it may be desirable in some, particularly in younger individuals. Patients with this type of pacemaker increase their heart rates with stress and exercise as does anyone with a normal response of the sinoatrial node. The synchronous pacemaker perceives the P wave via an atrial electrode. This received impulse triggers an output stimulus through the ventricular electrode. Thus, this pacemaker synchronizes the atrial and ventricular contractions and simulates normal cardiac action. In essence, the atrial impulse is propagated around the atrioventricular block by being passed into the pacemaker and, then, into the ventricle. These patients have a variable heart rate with synchrony of the P wave and QRS complexes resembling the normal conduction mechanism.

Demand

A significant group of patients have a variable heart block rather than persistent complete A-V dissociation. They may present on various occasions with any type of A-V conduction from a normal sinus rhythm to complete A-V block. While they may be asymptomatic during periods with a satisfactory cardiac rate, they may become quite symptomatic during intermittent periods of bradycardia. At these times, they may sustain cardiac arrest or fatal arrythmia. There has been concern for competition between normal ventricular deplorarization and the pacemaker impulse. Some have reported instances of fatal arrythmias when this occurs. Sowton has reported a significant incidence of unexplained sudden deaths in patients with electrical pacing and normal sinus rhythm.[11] Because of this concern, demand pacemakers have been developed which do not compete with a naturally occurring ventricular depolarization.

There are two types of demand pacemakers. One does not deliver a pacemaker stimulus if it detects a QRS complex from the heart. The other always delivers an impulse, but it is coincident with the R wave if the pacemaker detects a QRS complex from the heart. The heart, which is refractory to other stimuli during this period, will not respond to the pacemaker stimulus. When the normal rate is adequate, this pacemaker is physiologically ineffective because its stimulus is synchronized to the R wave. This second type of pacemaker is referred to as a standby pacemaker, but it functions physiologically as a demand pacemaker. Either type of demand pacemaker has the same effect upon the peripheral pulse and avoids the problem of competition of the pacemaker stimulus with a normal ventricular depolarization. Both of these demand pacemakers function at a fixed rate when the patient's rate falls below that which is arbitrarily set in the pacemaker (usually 60 to 70 min.).

Electrocardiograms

Normal Pacing

A single lead of the electrocardiogram provides one view of the electrical forces of the heart. The pacemaker stimulus appears as a single sharp spike superimposed upon these events. The polarity of the spike depends upon the position of the electrode in or on the heart. The direction and amplitude of the QRS complex and pacemaker spike vary from lead to lead, and the duration of the QRS complex is usually longer than normal. The critical relationship is that the pacemaker spike is closely followed by a ventricular depolarization. This is invariable if the heart is captured by the pacemaker. P waves are usually visible in some leads, unrelated to the pacemaker spike or the QRS complexes. Fig. 1 illustrates the electrocardiogram of the normal cardiac response to a fixed rate electrical pacemaker with an endocardial lead implanted in the right ventricle. (All tracings were taken at the standard electrocardiographic paper speed of 25 mm per sec.) The close and invariable associa-

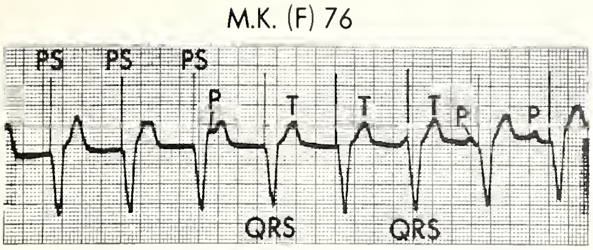

Fig. 1 Lead II ECG tracing showing fixed rate ventricular pacing. Note the close and invariable relationship between the sharp pacemaker spike (PS) and ventricular depolarization (QRS). P waves are visible but not conducted.

tion of the pacemaker stimulus followed by the ventricular depolarization is the hallmark of good cardiac control.

Competitive Pacing

In some patients who are treated with a fixed rate, pacemaker ventricular contractions occur independently of the pacemaker. These arise at the ventricular level or higher in the conduction system. Intermittently they even may be normally conducted beats. These competitive beats usually result in an irregular peripheral pulse. The patient may be asymptomatic. Fig. 2 illustrates the electrocardiogram and peripheral pulse tracing of such a patient. (Peripheral pulse tracings were obtained with APT-16 pressure transducer [Hewlett-Packard] except for the direct brachial pulse tracing in Fig. 3.)

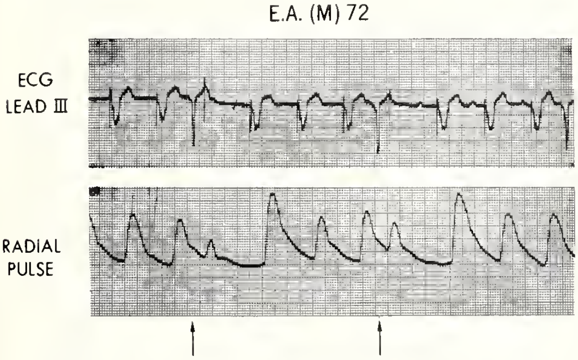

Fig. 2 Lead III ECG and radial pulse tracings to show fixed rate ventricular pacing with ventricular extrasystoles *(arrows)*. Extrasystoles are associated with a small peripheral pulse and failure of the ventricle to respond to the next pacemaker stimulus which falls on the T wave.

Note that the patient has independent ventricular depolarizations which leave the ventricle refractory when the impulse arrives from the pacemaker. While this is worrisome from the standpoint of potential arrythmias, nevertheless, the pacemaker is stimulating the ventricle when the ventricle is receptive. The peripheral pulse will be irregular as shown in Fig. 2. Although extrasystoles usually result in a slight increase in the peripheral pulse rate above that of the pacemaker, frequent ventricular extrasystoles may cause a marked reduction as observed in another patient with bigeminy. This arrythmia decreased the peripheral pulse rate to one-half that of the pacemaker (Fig. 3).

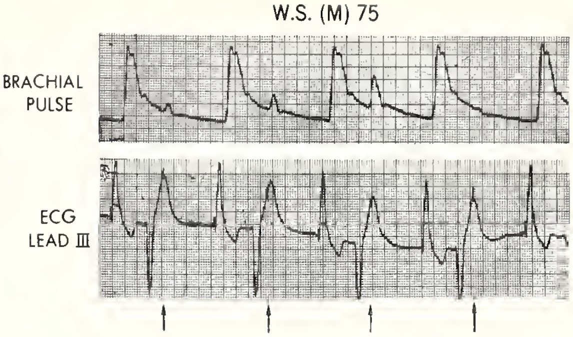

Fig. 3 As in Fig. 2, the pacemaker stimuli *(arrows)* falling in the refractory period of extrasystoles fail to stimulate the ventricle. Because the peripheral pulse associated with the extrasystoles is not palpable, the peripheral pulse rate is one-half that of the pacemaker.

Failure of Cardiac Capture

There are several situations in which a fixed rate pacemaker fires, but does not consistently stimulate the heart. These include impulse generator exhaustion, an increased electrode-myocardial junction threshold and dislodgement or break of the electrode. Failure of cardiac capture usually is an intermittent phenomenon at first, becoming constant later. It should be detected initially by the patient as a change in rate if he has been counting his pulse twice daily as he should be instructed to do. An electrocardiogram will document these events. All of the above conditions may produce a similar eletrocardiogram demonstrating incomplete cardiac capture. Battery exhaustion usually is associated with a change in the rate of the pacemaker. This generally does not occur with electrode fracture or displacement or increased electrode-myocardial threshold. This change in rate may be either an increase or decrease. Illustrated in Fig. 4 is the electrocardiogram of a patient with an implanted pacemaker whose impulses are inadequate to consistently stimulate the heart because of pacemaker exhaustion. Note the inconsistent relationship of the pacemaker impulses to ventricular depolarization, as the heart responds in-

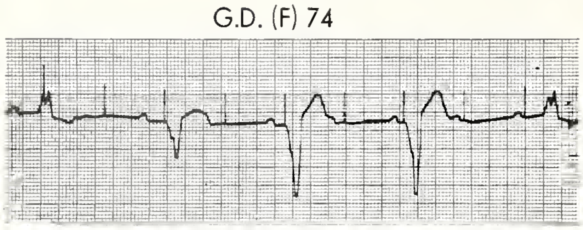

Fig. 4 Lead II ECG tracing from a patient with impulse generator exhaustion. Some stimuli cause ventricular depolarization.

termittently to the pacemaker stimulus. An electrocardiogram similar to this can result from an increase in threshold at the electrode-myocardial junction.

Fig. 5 is the electrocardiogram of a patient with a broken myocardial electrode. The impulses are recorded on the electrocardiogram, but they do not stimulate the heart and there is no consistent relationship between the pacemaker impulse and ventricular depolarization. A similar electrocardiogram may be seen with a dislodged endocardial electrode. In this instance, the pacemaker stimulus may be followed by a P wave and only intermittently by ventricular depolarizations suggesting atrial positioning of the electrode as in Fig. 6. A broken or dislodged electrode may not be readily apparent on a routine chest x-ray, but an over-penetrated technique and special views usually will bring out the details of the electrodes. The sudden occurrence of an irregular peripheral pulse demands an electrocardiogram for further evaluation of pacemaker performance. Proper x-rays then will clarify the presence or absence of difficulty attributable to the electrodes.

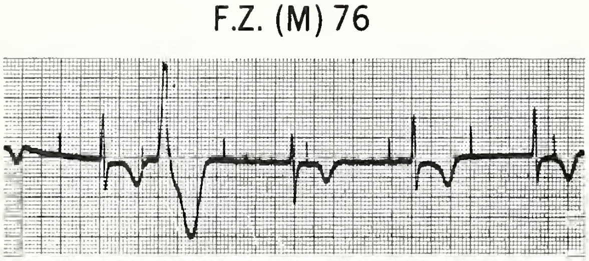

Fig. 5 Lead III ECG tracing from a patient with broken myocardial electrodes. Note the inconsistent relationship of ventricular depolarization to the pacemaker stimuli.

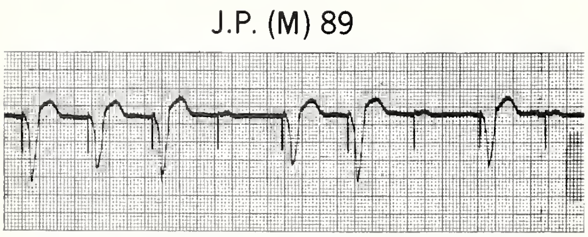

Fig. 6 Lead II ECG tracing of a patient with dislodged endocardial electrode. Note the intermittent atrial and ventricular response to the pacemaker stimulus. The relationship of the pacemaker stimulus to the P wave suggests atrial position of the electrode. Tracing is similar to those in Figs. 4 and 5. X-rays will further differentiate between the etiology of these similar tracings.

Synchronous Pacing

Synchronous pacing implies coordination between the atrium and the ventricle. P waves should be followed by the pacemaker impulse and ventricular depolarization as demonstrated in Fig. 7. These patients have a variable heart rate when synchronously paced, their rate varying with the rate of the sinoatrial node discharge. In the event of battery exhaustion, this pacemaker assumes pacing at a fixed rate. Sudden reversion of synchronous to fixed rate pacing usually indicates exhaustion of the power supply.

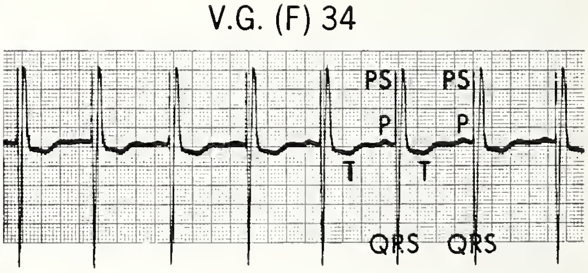

Fig. 7 Lead II ECG tracing illustrating synchronous pacing. Each P wave is followed by a pacemaker spike (PS) which is in turn followed by a QRS complex.

Demand Pacing

Demand pacing is currently attained by either of two techniques. One method employs a pacemaker circuit which blocks the impulse generator output if there is an electrical discharge of the heart of a certain magnitude and duration. Fig. 8 is an electrocardiogram and pulse tracing of a patient with a demand pacemaker functioning in response to induced bradycardia. When the heart was slowed by carotid sinus massage, the bradycardia evoked a prompt pacemaker response. Upon release of carotid pressure, the heart accelerated and the pacemaker impulses were blocked. The output of such a pacemaker also can be checked by externally increasing the rate of this pacemaker by radio-frequency stimuli.

The second method of demand pacing is referred to as stand-by pacing. Fig. 9 is the elec-

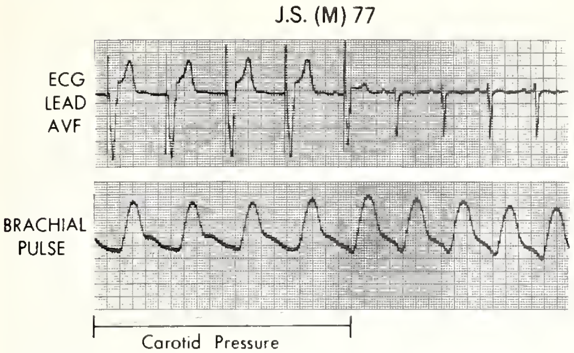

Fig. 8 Lead II ECG and pulse tracing of a patient with a demand pacemaker. Carotid sinus pressure evokes bradycardia allowing the pacemaker to control the heart at a fixed rate slightly faster than the sinus rate. Following withdrawal of carotid sinus pressure acceleration of the sinus rhythm controls ventricular depolarization and suppresses the pacemaker discharge.

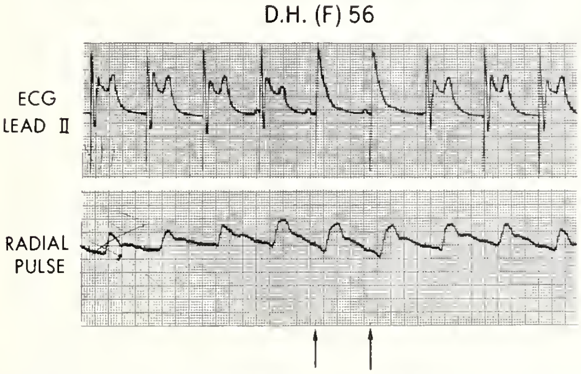

Fig. 9 Lead II ECG and radial pulse tracings to illustrate stand-by pacing. With an adequate heart rate, the stimuli are synchronized to the R wave *(arrows)*. Note the configuration of the paced and nonpaced *(arrows)* QRS complexes and the constant peripheral pulse.

trocardiogram and pulse tracing of a patient in whom this type of pacemaker is functioning. If no ventricular depolarization is detected by the pacemaker for a period of 0.86 sec, the pacemaker functions as a fixed rate pacemaker at 70 pulses per min. If a ventricular depolarization of an appropriate magnitude and duration occurs at intervals of less than 0.86 sec, the pacemaker is triggered by this depolarization and its output is synchronized to the upstroke of the R wave. In this phase of the cardiac cycle, the pacemaker stimulus is physiologically inactive and does not affect the cardiac rate or peripheral pulse although it does appear as a spike on the R wave and distorts the QRS complex of the electrocardiogram. That the pacemaker stimulus in this phase of the cardiac cycle does not alter the peripheral pulse tracing is shown in Fig. 9. This type of impulse will not result in competition nor in stimuli occurring in the relatively refractory or supersensitive periods of the cardiac cycle. The electrocardiogram resembles that of competitive pacing and may be mistaken for competition if one is not aware of the performance of this particular pacemaker.

SUMMARY

Routine management of the patient with an implantable fixed rate pacemaker dictates that the peripheral pulse be counted twice daily. Any change in rate demands an electrocardiogram. Knowledge of the type of pacemaker implanted and the expected normal ECG allows one to clarify the underlying cause of the pulse irregularity. The close relationship between the pacemaker stimulus and the QRS complex indicates cardiac capture. The dissociation of this relationship may occur with pacemaker failure, electrode displacement or fracture or increased electrode-myocardial threshold. Competitive ventricular depolarizations may cause pulse irregularity. All of these situations may be clarified from the electrocardiogram of these patients with a fixed rate pacemaker. X-rays will confirm electrode breaks or displacement.

Patients with synchronous or demand pacemakers usually have variable pulse rates. Therefore, irregularity of the pulse is not as reliable an index of continual satisfactory pacemaker performance. Each of these pacemakers, however, has a characteristic electrocardiogram. Deviations from normal should be investigated.

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A Roentgen Exhibit

Lesser Peritoneal Sac Abnormalities

M. WENDELL DIETZ, M.D.,* ***Springfield***

UNLESS ALERTED BY THE RADIOLOGIST, the clinician is unlikely to consider the lesser peritoneal cavity in the evaluation of abdominal complaints. This disregard is largely merited: the sac is a potential structure only. Because of its "deep and protected position," physical examination is difficult to impossible even in the presence of disease. Roentgen manifestations of involvement are therefore uniquely important.

If queried regarding the clinical significance of the lesser sac, the most likely circumstance to be recalled is perforation of a posterior gastric ulcer with lesser sac abscess formation. In this exhibit, three additional syndromes of secondary involvement are illustrated. In each, roentgen changes typify diagnostic features of lesser sac lesions and emphasize the potentiality for extension of disease from adjacent organs.

In conclusion, this collection presents examples of two pertinent oddities. These are the rarest of all forms of internal hernia: migration of the right colon and also of the gallbladder through the foramen of Winslow into the lesser sac. Statistically, their rarity may be gauged by Erskine's collective review in 1967 of 27 reported cases of cecal hernia into the lesser sac and Dardik's 1967 report of the sixth proved case of gallbladder hernia.

CASE I. LESSER SAC GAS ABSCESS—A COMPLICATION OF ACUTE PANCREATIC NECROSIS

Inasmuch as the pancreas is covered by the peritoneal layer forming the posterior wall of the lesser sac, the prospect of extension of a hemorrhagic or suppurative pancreatitis into this intraperitoneal cavity may be anticipated. Blood and/or pus may burrow into the lesser cavity creating recognizable roentgen patterns.

Cholecystographic and gastrointestinal studies (Figs. 1 and 2) were ordered upon hospitalization of a 66-year-old man. Admission clinical impressions were acute cholecystitis or pancreatitis. The patient was acutely ill with fever, nausea, vomiting and considerable abdominal pain. Drainage of this extensive lesser sac abscess released foul-smelling gas and pus; the organisms cultured were gram-negative rods of the paracolon group.

Although unusual, a long air-fluid level in a large cavity has been described in lesser sac abscess secondary to pancreatic necrosis. A hydropneumoperitoneum of this type is more likely to result from rupture of an air-containing viscus, however. More frequently, a lesser sac abscess is manifest by multiple disseminated gas bubbles. Both varieties of extraluminal gas production are illustrated in this case. (After the onset of symptoms, this patient was hospitalized elsewhere for two weeks. It is conceivable that a posterior gastric penetration by the abscess could have spontaneously healed by the time of this examination.)

The retroperitoneal "soap bubble" gas collection nullifies the possibility that the abscess was primary in the gallbladder.

CASE II. LESSER SAC GAS ABSCESS—A COMPLICATION OF LEFT PERINEPHRIC ABSCESS

With the exception of a rare encounter by an urologist, perinephric abscess secondary to renal sepsis is practically nonexistent. In the pre-antibiotic area, a perinephric abscess usually was secondary to hematogenous Staphylococcal metastases from skin, teeth or respiratory suppuration. A particularly unique complication of a perirenal abscess is the development of a lesser peritoneal sac abscess secondary to anterior dissection. Figs. 3 and 4 illustrate such a rarity.

The 58-year-old male patient was a known alcoholic, diabetic and cirrhotic. Following a seven-day drinking bout during which he was oblivious of diet, he was hospitalized, acutely and severely ill with anasarca.

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Roentgen studies revealed subphrenic free air as well as the perinephric and lesser sac gas collections. Subsequent incision and drainage of the perinephric abscess released a copious amount of foul-smelling pus. Abscess cultures yielded Aerobacter cloacae. The retroperitoneal abscess was described by the surgeon as having dissected anteriorly into the lesser peritoneal sac.

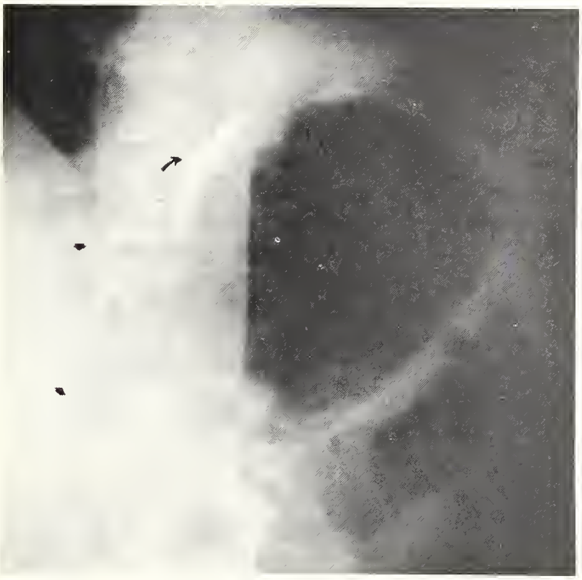


Fig. 1 A large air-fluid collection in the left subphrenic area is disclosed by a right lateral decubitus cholecystogram. No evidence of a functioning gallbladder is seen. Unabsorbed Telepaque indicates medial displacement of the esophagogastric junction (curved arrow). Numerous gas vesicles are identified at the right of the spine medial to the lesser sac (small arrows).

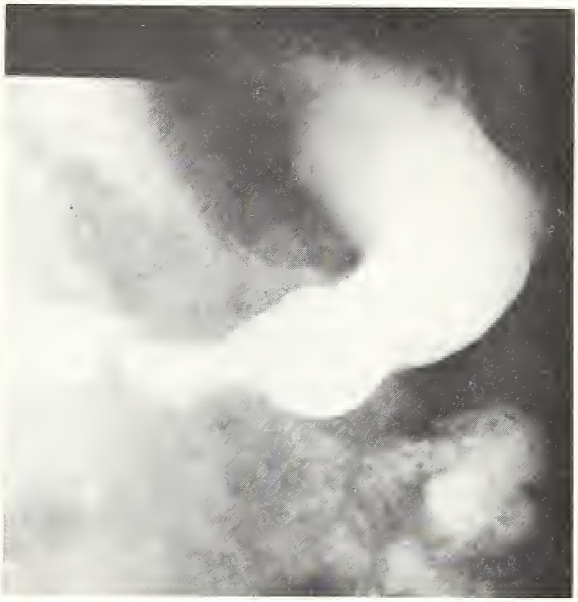


Fig. 2 An oblique projection confirms the retrogastric location of the large air collection in the lesser sac. The small gas bubbles are retroperitoneal within the pancreatic substance.

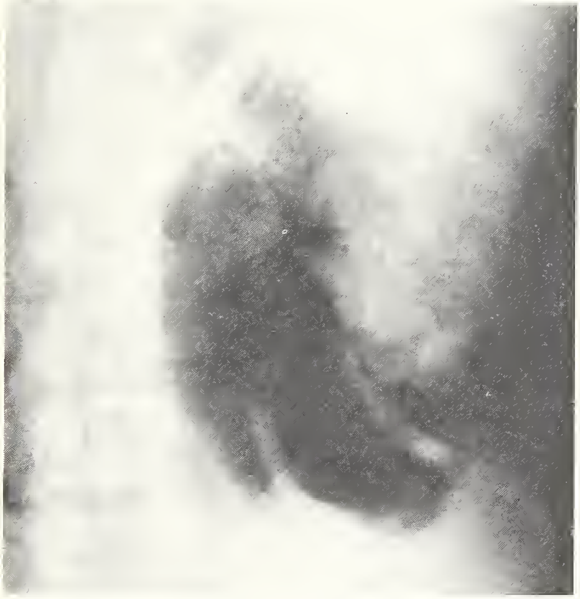


Fig. 3 An excretory pyelographic film reveals nonfunction of an enlarged, laterally displaced left kidney. A bizarre extra-intestinal gas collection is situated medial to the kidney in the anticipated location of the lesser peritoneal cavity.

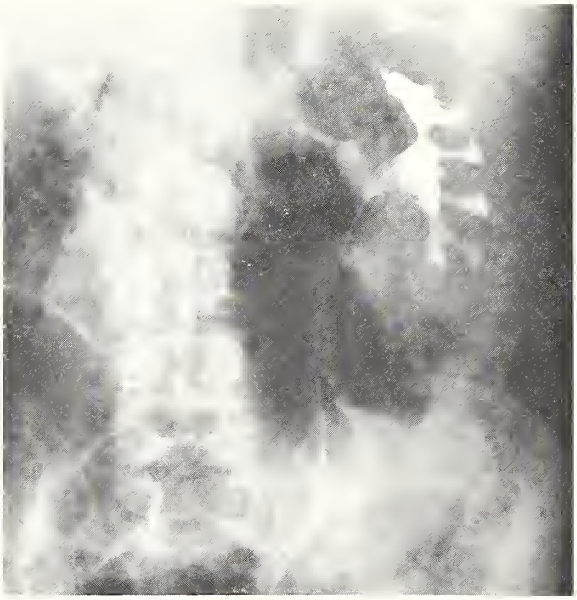


Fig. 4 A left retrograde pyelogram confirms lateral displacement of an enlarged kidney. The intrarenal collecting system is unremarkable. A retroperitoneal "soap bubble" gas pattern extends from the perirenal area downward in the flank to the inguinal region. On the right, a poorly calcified gallstone is visible adjacent to gas bordering the psoas muscle.

Case III. Lesser Sac Hematoma—A Complication of Liver Trauma

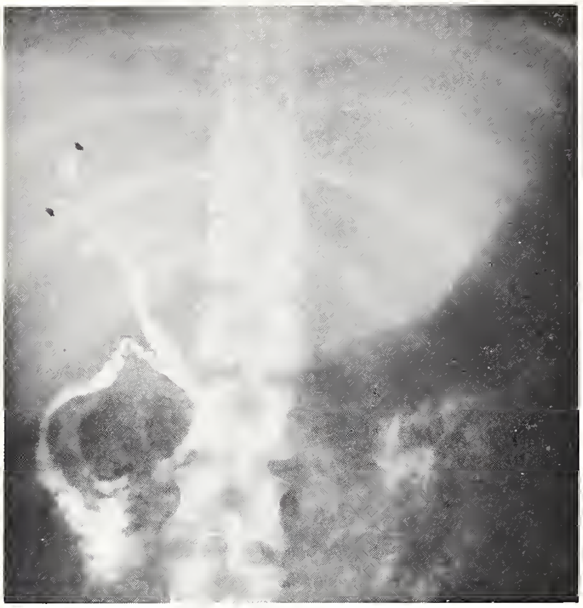


Fig. 5 Intrahepatic extravasation of contrast medium (arrows) is demonstrated by a supine cholangiogram performed through a cholecystostomy tube. Only a limited number of patent radicles are opacified. The extent of caudal and lateral displacement of gastric air indicates the enormity of the lesser sac hematoma.

A 41-year-old man was involved as a driver in a high velocity automobile accident. He was hospitalized in profound shock with evidence of severe abdominal contusion and multiple rib fractures. A paracentesis revealed free intraperitoneal blood. An exploratory laparotomy was scheduled without radiologic examination. (The usefulness of hepatic angiography in the investigation of hepatic rupture has been recently emphasized.)

Multiple large liver lacerations with brisk bleeding into the greater and lesser omental cavities were detected at operation. After repair of lacerations, ligation of the left hepatic artery and packing with Oxycel gauze, a cholecystostomy was performed. Drainage of the extrahepatic biliary tract is intended to reduce the incidence of biliary fistula and acts as a monitor for detection of hemobilia.

Fig. 5 is a representative postoperative roentgen study. It reveals multiple intrahepatic duct lacerations as well as a massive lesser sac hematoma. (Roentgenologically, the lesser sac blood collection could not have been differentiated from a huge subcapsular liver hematoma.)

Case IV. Cecal Herniation Into Lesser Sac

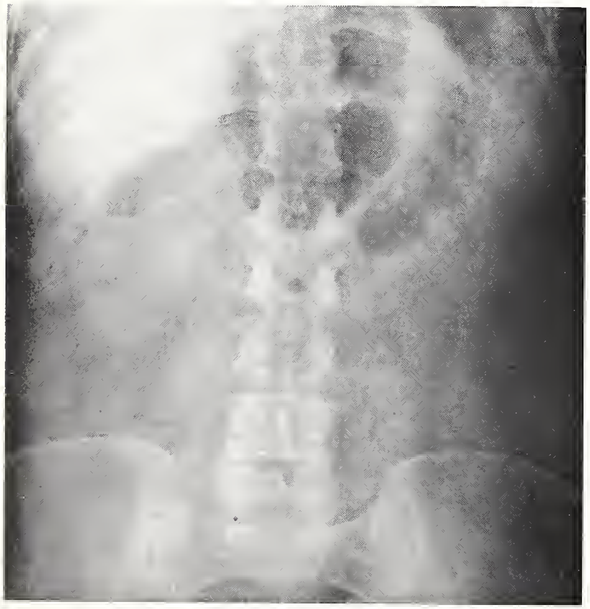


Fig. 6 An admission survey abdominal film reveals a striking absence of intestinal gas. The gastric air bubble is displaced laterally by a midline air collection in the anticipated locality of the lesser sac. Scalloping of the margins of this air bolus typifies bowel haustrations and precludes the possibility of a free air collection.

Fundamental to the development of this extremely rare intra-abdominal hernia are enlargement of the foramen of Winslow and hypermobility of the cecum (due to a retained mesentery with absence of fusion to the posterior abdominal wall). Small intestinal herniation into the lesser sac exceeds cecal hernia in frequency of occurrence.

Cecal volvulus is a second surgical complication of hypermobile cecum. It also is characterized radiologically by an anomalous position of an air-distended cecum and by a closed loop obstruction. Furthermore, a clinical syndrome of severe abdominal pain with signs of bowel strangulation is common to both conditions. In some instances of lesser sac hernia, volvulus has been found at the site of incarceration. Additional complications recorded include reentry hernia and gangrene necessitating resection of intestine.

Recurrent herniation requiring reoperation has not been reported. Surgical attempts to obliterate the foramen are deemed unwarranted in view of possible injury to the common duct, portal vein and vena cava.

The patient was a 57-year-old woman hos-

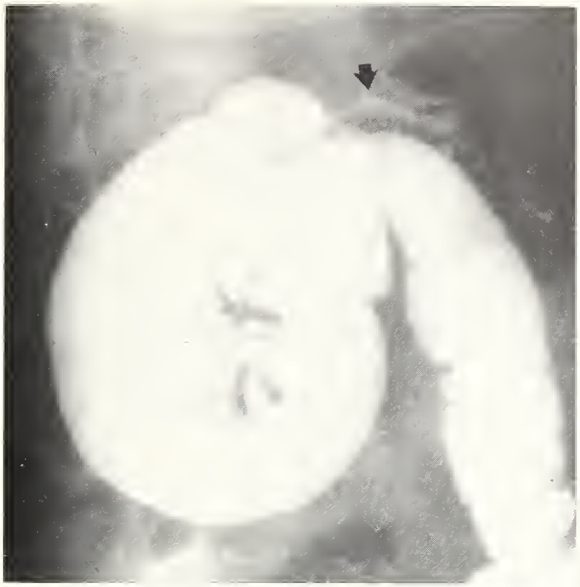


Fig. 7 An oblique barium enema spotfilm reveals an abrupt stenosis of the proximal ascending colon. This malpositioned loop is directed in a cephalad direction.

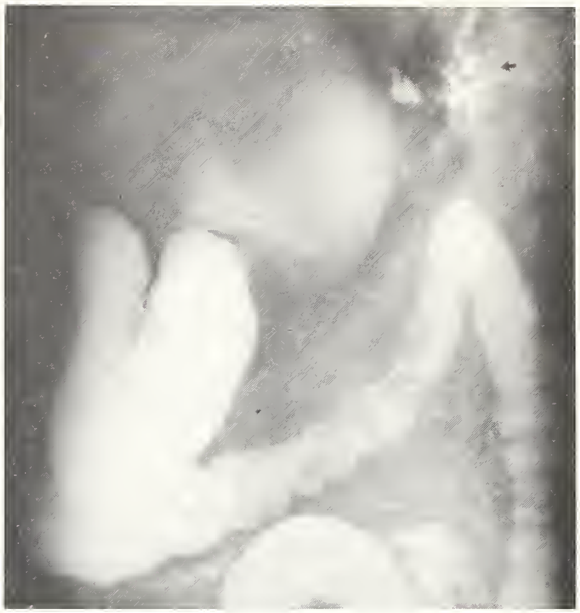


Fig. 8 The opposite oblique colon projection reveals that the circumferential constriction permits the passage of sufficient barium to coat an incarcerated, dilated cecum. A small amount of barium was administered orally to demarcate the position of the stomach (arrow).

pitalized with a 12-hour history of severe epigastric pain. A hysterectomy had been performed one year prior to this admission. The patient recalled that the gynecologist stated that an appendectomy had not been done. Probable failure to locate the displaced appendix attests to the chronicity of this cecal herniation (Figs. 6, 7 and 8).

Case V. Gallbladder Herniation Into Lesser Sac

A series of analogies to the more thoroughly investigated entity of cecal hernia is predictable in the consideration of gallbladder hernia. A hypermobile gallbladder is a frequently recognized anomaly in cholecystography (as is the floating cecum in barium studies). Variability in position is ordinarily of little clinical significance although it may complicate both radiologic and surgical investigation. Nevertheless, excessive gallbladder mobility may permit torsion (as a hypermobile cecum predilects volvulus). Finally, as is true of intestinal herniation, a widened epiploic foramen is prerequisite for gallbladder hernia into the lesser sac.

Several clinical dissimilarities between the two types of hernia are noteworthy. In contrast to bowel herniation, gallbladder hernia has not constituted a surgical emergency. As a matter of fact, spontaneous reduction with intermittency of clinical symptoms and roentgen signs are characteristic. Normal opacification of the herniated gallbladder confirms its concentrating ability and precludes mechanical interference with its patency or blood supply.

Vint has emphasized that when reduction of

(Continued on page 116)

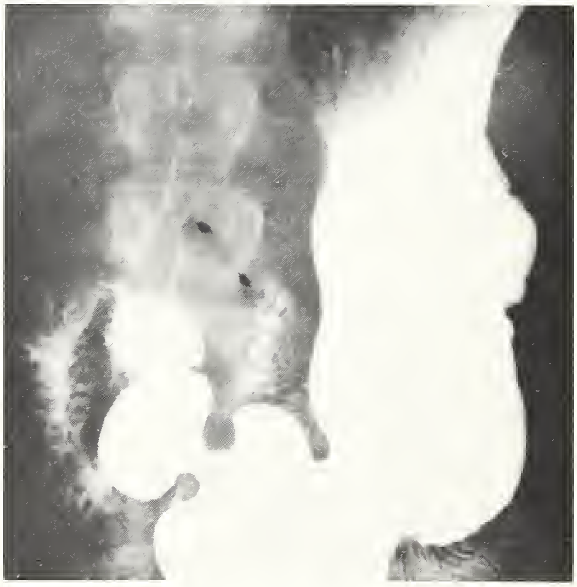


Fig. 9 A frontal barium meal study after cholecystography reveals that the gallbladder is displaced from its anticipated position lateral to the proximal duodenum. Arrows indicate the abnormal gallbladder location medial to the duodenal bulb overlying the spine. This anomalous relationship typifies gallbladder herniation through the foramen of Winslow into the lesser cavity.

RUTH McCHESNEY YOHE, M.D. *and*
RAYMOND J. CAFFREY, M.D., *Kansas City*

A Kindred With Partial Trisomy-B Due to B/G Translocation

Case Reports

Since Tjio and Levan introduced a practical method for studying human chromosomes, a wide variety of abnormalities has been described.[1] The majority of chromosomal abnormalities thus far reported involve sex chromosomes and autosomes from the D, E and G groups.[2, 3] More recently, reports of B group abnormalities have appeared, among which Le Juene's "cri du chat" syndrome is the best known.[4]

This report concerns a B/G translocation involving two generations in a kindred which contains three affected individuals and an unaffected carrier.

Case Reports

Case # 1. An infant girl, B., was admitted to Children's Mercy Hospital on July 22, 1959 at one day of age for evaluation of ambiguous genitalia. The mother was a normal 20-year-old primipara. The 39-year-old father had three normal children by a previous marriage.

The pregnancy was reported as normal. The baby was delivered by an uncomplicated breech delivery two weeks before term, weighing 2,770 gm. In addition to the ambiguous genitalia, physical malformations noted were a peri-orbital dermoid cyst, esotropia and a large left ear with absence of the helix. Examination of the genitalia showed an enlarged clitoris superior to a skin tag with a slit-like opening and a normally located anus. Radiographic studies demonstrated a bicornuate uterus, bilateral hydronephrosis and hydroureters. The orifice of the urethra was in the vagina. Adrenogenital syndrome was excluded by normal 24-hour urinary 17-ketosteroid determinations. No abnormality of urinary amino acid excretion was found by paper chromatography. Protein bound iodine was normal. The urine was negative for metachromatic granules.

Periodic evaluation during the next six years showed that neuromuscular development was markedly delayed. At the age of four years and nine months, her weight was 12.3 kg, her height was 92 cm and her head circumference was 46 cm. She was able to hold her head and sit alone briefly. She reached for objects, but could not talk or understand verbal communications. At six years of age, she was beginning to walk alone and appeared to understand what was spoken, but she was unable to answer intelligently.

This report concerns a B/G chromosomal translocation involving at least two generations in a kindred which contains three affected individuals and an unaffected carrier. The affected individuals have a partial trisomy for a B group chromosome. The authors illustrate an application of cytogenetic studies to genetic counseling. Dr. Yohe is from The Children's Mercy Hospital and is Clinical Assistant Professor of Pediatrics at the University of Missouri School of Medicine and the Kansas School of Medicine. Dr. Caffrey is Associate Pathologist at Research Hospital and Medical Center and Assistant Clinical Professor of Pathology at the University of Kansas School of Medicine.

Case #2. K., also a girl, was the first child of R., who is a normal half-brother of B. K. was brought to Children's Mercy Hospital in November, 1965 at 12 months of age for evaluation of slow development. The mother was a normal 19-year-old primipara. Pregnancy and delivery were reported as normal. The baby's birth weight was 3,070 gm. At 16 days of age, a mass was palpated in her right flank. On surgical exploration, this was found to be a polycystic kidney.

On physical examination at 12 months of age, she was a well-nourished hypotonic baby. Her weight was 9.5 kg. Her length was 75 cm and her head circumference was 49 cm. She was unable to hold her head up or sit alone. She did not respond intelligently to verbal stimuli.

Large ears with a double helix and a short neck were noted. The protein bound iodine was normal. No abnormal urinary amino acids were detected by paper chromatography.

Subsequent evaluation at 17 months of age showed that she was starting to respond to verbal stimuli and could be propped in a stroller, but she could not hold her head up or sit alone.

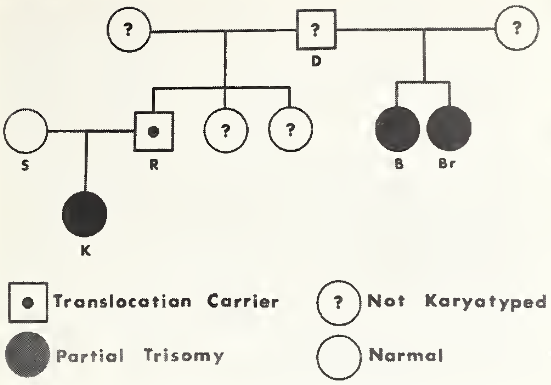

?
?
D
?
S
R
?
?
B
Br
K
Translocation Carrier
?
Not Karyotyped
Partial Trisomy
Normal

Fig. 1 Partial pedigree of the kindred.

These two children have the common features of severe mental and motor retardation with marked hypotonia, anomalies of the genitourinary system and large, abnormally formed ears.

Cytogenetic Studies

Karyotypes from leukocyte cultures were prepared on the parents of K., R. and S., K., B. and Br. Br. is a half-sister of R., who is mentally retarded but has no apparent physical malformations.

Fig. 1 is a partial pedigree of the kindred. Karyotypes of R. and K. make up Fig. 2 and Fig. 3, respectively. The karyotype of K. resembles those of B. and Br. in all major respects. Table 1 summarizes the chromosomal findings of all the individuals studied.

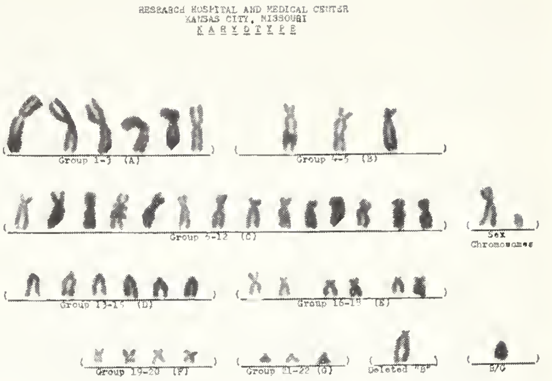
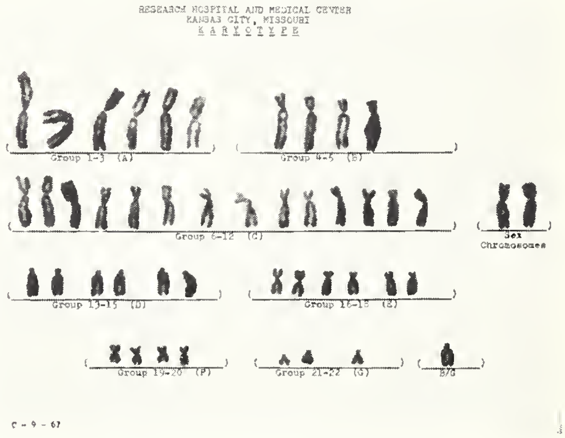

RESEARCH HOSPITAL AND MEDICAL CENTER
KANSAS CITY, MISSOURI
KARYOTYPE
Group 1-3 (A)
Group 4-5 (B)
Group 6-12 (C)
Sex Chromosomes
Group 13-15 (D)
Group 16-18 (E)
Group 19-20 (F)
Group 21-22 (G)
Deleted "B"
B/G

Fig. 2 Karyotype of the carrier father, R. Note the shortened (deleted) B chromosome and the acrocentric (B/G) intermediate in length between the D and G group members.


RESEARCH HOSPITAL AND MEDICAL CENTER
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KARYOTYPE
Group 1-3 (A)
Group 4-5 (B)
Group 6-12 (C)
Sex Chromosomes
Group 13-15 (D)
Group 16-18 (E)
Group 19-20 (F)
Group 21-22 (G)
B/G
C - 9 - 67

Fig. 3 Karyotype of the affected girl K. Note that she has a complete group of B chromosomes plus the added-on segment on one of her G group members which is labelled B/G in the figure. She is thus trisomic for part one of her B group chromosomes.

In each karyotyped cell of the abnormal children, there is an acrocentric chromosome intermediate in length between those in D and G groups. This abnormal chromosome might be either an elongate member of the G group or a shortened (deleted) member of the D group. In addition, each of these children had three instead of the normal four G group chromosomes. Karyotypes of the children alone do not reveal the make-up of the abnormal chromosome. The karyotype of R. (father of K.) in Fig. 2 supplies that information.

The karyotype of R. contains two normal chromosomes: a submetacentric which fits into the B group and an abnormal acrocentric re-

TABLE 1

SUMMARY OF CYTOGENETIC STUDIES

	42	*43*	*44*	*45*	*46*	*Total Cells Studied*	*Interpretation*
R. (Father of K.)			1	2	22	25	Balanced B/G translocation, male
S. (Mother of K.)	1		1	4	17	23	Normal female
B. (Half-sister of R.)	2				8	10	B/G Translocation with partial Trisomy B, Female
Br. (Half-sister of R.)	1	1	1		5	8	B/G Translocation with partial Trisomy B, Female
K. (Daughter of R. & S.)				2	23	25	B/G Translocation with partial Trisomy B, Female

sembling that seen in the karyotypes of the children. R.'s karyotype is thus seen to contain a balanced translocation in which a segment of the short arm of a B-group chromosome is translocated onto the long arm of the member of the G group, making him a carrier. A balanced translocation includes a virtually complete chromosomal complement and, as might be expected, is found in a phenotypically normal individual.

DISCUSSION

The carrier individual is capable of producing several varieties of gametes with respect to the B and G group chromosomes. Fig. 4 diagrammatically indicates the various types of zygote which might result from a mating between such a carrier man and a normal woman. Zygotes with respect to the B and G groups would be as follows: normal, affected (partial trisomy B), carrier (replica of carrier parent) or B-group deletion (could be lethal or viable as in the "cri du chat" syndrome).

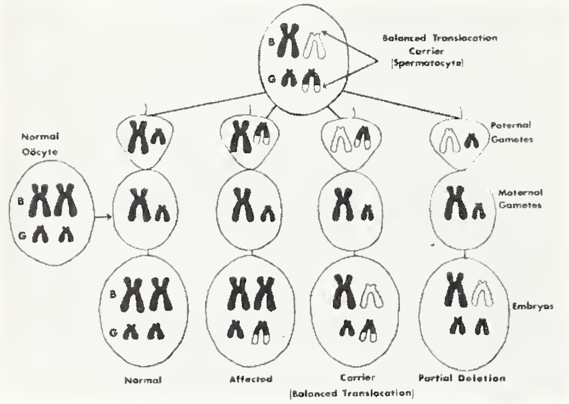

Fig. 4 The carrier father, R., can produce spermatozoa (paternal gametes) with four different combinations with respect to the B and G groups. Union of each one of these spermatozoa with a normal ovum (maternal gamete) will produce an embryo (bottom line) with one of four possible B-G combinations: normal, affected (partial trisomy B), balanced translocation carrier (like father) or a partial B deletion.

Visualization of the chromosome as a single strand or bar-like structure (a form it assumes in prophase) facilitates explanation of translocation. An exchange of segments between two unpaired chromosomes can produce a translocation chromosome with one, two (dicentric) or no (acentric) centromeres. This is crucial because only a chromosome with a single centromere can allow cell division to proceed. A single acentric or dicentric chromosome will prevent mitosis and block propagation of such a clone of cells. If the translocation chromosome has one centromere, normal cell division can proceed with development of the abnormal clone possessing the translocation.[5] Fig. 5 illustrates these points.

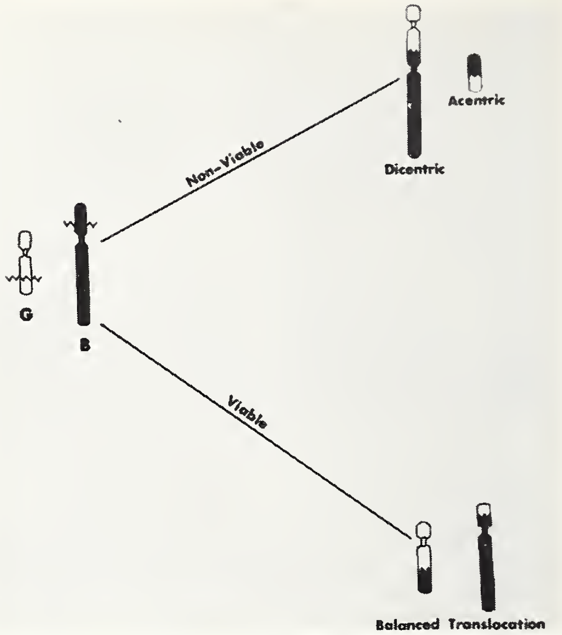

Fig. 5 If there is a reciprocal translocation between unpaired chromosomes (e.g. between members of the B and G groups), abnormal chromosomes may be formed which have one, two (dicentric) or no (acentric) centromeres. Only cells with monocentric chromosomes are viable.

Chromosomal translocation in a given individual can occur in two ways. It may arise de novo from an accident during parental gametogenesis or very early in embryogenesis. It may arise during gametogensis in a carrier (balanced translocation) ancestor who "silently" transmits the abnormal, but balanced chromosomal complement to his progeny who then may produce affected children. The latter mechanism probably operated in the kindred of this report.

In retrospect, it now can be seen that, if the parents of B. and Br. had been studied, it is very likely that the presumed carrier status of their father (D.) would have been uncovered. This, in turn, would have led to studies of his other children among whom is R. The application of these facts to genetic counseling is obvious.

Unfortunately, most members of this kindred have not been accessible or cooperative enough for all the indicated studies to have been carried out. Nevertheless, the lesson is clear.

(Continued on page 116)

H. RICHARD McFARLAND, M.D., ***Kansas City***

The Management of Multiple Sclerosis

Part II—Serial Neurologic Examinations and Use of Corticotropin and Glucocorticoids

In Part II of this paper, the author discusses serial neurologic examinations and the use of corticotropin and glucocorticoids in the management of multiple sclerosis. He presents a plan for following patients with multiple sclerosis at clinic visits, emphasizing quantitative methods of examination. Dr. McFarland is an Instructor of Neurology at Kansas City General Hospital and Medical Center and at the University of Kansas Medical Center; Consultant in Neurology at the VA Hospital; and on the staffs at St. Luke's Hospital and Research Hospital.

SERIAL EXAMINATIONS

INITIALLY, and as needed thereafter, every patient should have a complete physical and neurologic examination. At each clinic visit, a brief interval history and neurologic system review is obtained (Table 1). Specific questions regarding the patient's ability to carry out his usual occupation, his activities of daily living, the distance he can walk with or without aids and the exact status of bladder and bowel are in order. The frequency of clinic visits depends upon the activity of the patient's disease, his emotional stability and his treatment. Patients receiving glucocorticoids should be seen every three months and more often if they note any side effects from their medications. Routine visits for patients in remission or not taking drugs are spaced at yearly intervals.

During clinic visits, the patient's ability to ambulate with and without assisting devices is observed and recorded (Table 2). This includes evaluation of stance (broad or narrow), gait (spastic or ataxic, or both), heel and toe walking, tandem walking, Romberg test, ability to rise and stand independently, ability to transfer in and out of a wheelchair (if needed) and proper working condition of braces (if used).

A brief cranial nerve examination emphasizing functions frequently impaired in multiple sclerosis includes funduscopic examination, visual fields, visual acuity in each eye (quantitated by use of Jaeger or Snellen charts), extraocular muscle function, nystagmus and a check for facial paresis, dysarthria and dysphagia.

Motor examination includes evaluation of muscle tone (hypotonia, spasticity, clonus or rigidity) in the extremities. The strength of several major muscle groups in each extremity is tested and graded according to a semiquantitative, 0-5, scale.[20] A hand dynamometer is a simple and useful device for serial records of grip strength. Simple quantitative muscle testing may be done with a myometer.[21]

Deep tendon reflexes are graded 0-4 plus, and abnormal reflexes are rated. Extensor plantar and abnormal finger flexor responses and absence of superficial abdominal reflexes, when present, suggest pathology in the region of the corticospinal pathways and above the level tested.

Coordination tests include finger-to-nose, heel to shin and rapid alternating movements. Quantitative estimation of coordinated movements of the hands and feet may be recorded by using a keyboard counter and a foot pedal counter.[21] A simpler method is to count the number of audible taps in a 15 to 30 second interval with a stop watch or a wrist watch.

Sensory examination tests vibration, quantitated with a vibrometer, and 2-point discrimination, quantitated by calipers. Other tests include position sense, superficial pain, heat and cold.

THE PRESENT STATUS OF CORTICOTROPIN AND GLUCOCORTICOIDS FOR MULTIPLE SCLEROSIS

At this time, no curative drugs are available and no medicines are capable of permanently halting the progression of multiple sclerosis. However, corticotropin (ACTH) and glucocorticoids are helpful in some cases and in certain stages of the disease. These drugs can temporarily halt progression or hasten the onset of remissions in many patients.[22, 23] Other authors

TABLE 1

MULTIPLE SCLEROSIS STUDY NEUROLOGICAL SYSTEM REVIEW

Name Current Date
Date of Last Period (1st day of flow)

Instruction to Patient: If symptoms are increasing mark 2, unchanged mark 1, decreasing mark 0. (Do not take test if you have an infectious illness, such as a cold, flu, etc.)

General: Fatigability ______

Head: Headaches ______
Dizzy Spells ______
Fainting Spells ______
Seizures (Convlusions) ______

Eyes: Blind Areas ______
Blurring ______
Double Vision ______

Nose: Discharge From Nose (Allergy) ______

Face: Weakness ______
Numbness or Tingling ______

Speech: Impaired (Slurred) ______

Swallowing: Impaired ______

Skin: Itching ______
Rashes ______

Joints: Pain or Stiffness ______

Body: Numbness or Tingling ______
Pain in Back ______
Pain in Stomach ______

Arms-Hands: Numbness or Tingling ______
Loss of Strength ______
Tremor ______

Bladder: Frequency ______
Urgency ______
Hesitation ______
Incontinence ______
Pain ______

Bowel: Nausea or Vomiting ______
Constipation ______
Diarrhea ______
Incontinence ______

Legs: Numbness or Tingling ______
Loss of Balance ______
Loss of Strength ______
Stiffness ______
Cramps ______
Leg Jerks ______
Appliances (Canes, braces, walker, wheelchair, etc.) ______

Menstrual Periods: Irregularity ______
Condition Worsens During Menstruation ______
Condition Worsens at Midcycle (Ovulation) ______

Mental State: Impaired ______
Total ______
Previous Total ______
Previous Exam Date ______

TABLE 2

MULTIPLE SCLEROSIS STUDY NEUROLOGICAL EXAMINATION

(Fill in by R.N.)

Name
Sex (M or F) Age Date
Vital Signs: B.P. P. R. T. Wt.
General Appearance (Neat, unsoiled, etc.):
Mental State (Euphoric, depressed, psychotic, etc.):

Grade of Mobility (Circle one)	*Degree of Mobility (Circle one)*
1. Unrestricted	1. Walks with aid(s)
2. Restricted	2. Walks with brace(s)
3. Markedly restricted	3. Walks with a cane or crutch
4. Mobile at home	4. Walks with canes or crutches
5. Immobile at home	5. Walks in or with a walker
6. Bedridden	6. Cannot walk

(Performed by Doctor, recorded by R.N.)

I. *Quantitative Tests—*
  A. Record Number
    Visual Acuity—Jaeger number, with or without glasses (Circle which) R L
    Grip—Dynamometer R L
    Hand Supination-Pronation (Taps audible in 15 seconds) R L
    Foot Tapping (Taps audible in 15 seconds) R L
    Vibrometer—Lateral Malleolus R L
      Metacarpophalangeal Joint R L

Compare above with previous exam and place check ✓ beside value if current score is worse.

  B. If present—Check ✓
    Cranial Nerves
      Nystagmus—vertical R L
        toward side R L
      Extraocular muscle paralyzed R L
      Facial muscle weakened R L
      Facial sensation (pin) decreased R L
      Dysarthria
    Motor Exam
      Cannot walk on toes R L
      Cannot walk on heels R L
      Cannot complete a squat
    Coordination
      Finger-nose ataxia R L
      Heel-shin ataxia R L
    Reflexes
      Biceps hyperactive R L
      Quadriceps hyperactive R L
      Clonus, ankle R L
    Sensory Exam
      Pin (decreased)—upper extremity R L
      (decreased)—lower extremity R L
      Total Number Checks
      Previous Exam Total Number
      Previous Date

have confirmed this impression,[6, 24] but there also are contradictory reports.[25, 26] In general, a trial of the above medications is justified if the patient is in an exacerbation or having a prolonged downhill course and has not had them before.

The most potent drug of this group is corticotropin, which is given parenterally. Dosages are corticotropin, 40 mg-60 mg I.M. b.i.d. for five to eight days with a taper over three to ten days. Patients with good responses are tapered rapidly or early. Good results may be relatively lasting or a sudden relapse may occur. For those who relapse, a more gradual taper using corticotropin gel 20-40 units I.M. daily or every other day for several weeks may be effective. "Maintenance" treatment with corticotropin should be avoided due to inevitable "side effects." When exacerbations tend to occur as corticotropin is withdrawn, prednisone (Meticorten) or prednisolone, 5 mg-20 mg per day in divided doses, is given for "maintenance." The lowest effective dose is sought gradually and then administered every other day. When "alternate-day-treatments" are possible, patients may continue taking these drugs for years without untoward effects. Patients with chronic progressive disease or severe debilitation with irreparable central nervous system damage usually are not helped by these drugs.

Patients receiving corticotropin or high doses of glucocorticoids should have salt restriction (1 gm per day), potassium supplements (1 gm to 2 gm potassium chloride per day), antacids, daily weight and blood pressure checks and hemoglobin tests.

Patients receiving corticotropin for the first time are hospitalized. If an outpatient must receive treatment, he is followed very closely and the injections are given in smaller doses (40 mg) once daily. If the patient does not improve, he should be hospitalized for more intensive treatment. Corticotropin or glucosteroids are not initiated in patients with hypertension, ulcers, bleeding tendencies, infections, decubiti and organic brain syndromes or in those unwilling to cooperate closely and report frequently.

If no improvement is noted from corticotropin treatment, it is withheld thereafter. Patients who improve are given "maintenance" glucocorticoids or receive no medication, depending upon their clinical course. If relapses are five or more months apart, "maintenance" glucocorticoids are not needed and patients can receive corticotropin as required. Patients with relapses less than five months after corticotropin treatment are best kept on "maintenance" oral drugs to avoid frequent relapses. Only rare patients having frequent relapses despite "maintenance" medication and who respond well to corticotropin are maintained on corticotropin gel at home. Patients taking oral medication who seem to be exacerbating are told to increase their dose temporarily in an attempt to abort a relapse. Patients and physicians must realize, however, that brief fluctuations of symptoms, "bad days," do not call for a change of medications.

In general, successive corticotropin treatments produce somewhat decreasing degrees of improvement, but many patients respond well for years. Functions which usually respond to corticotropin and glucocorticoids include spasticity, retrobulbar neuritis, sensory disturbances and brain stem disorders. Sphincter function may improve, but cerebellar disturbances respond less well.

Physicians should be alert to complications of chronic or high-dose glucocorticoid therapy, such as osteoporosis, adrenocortical insufficiency, electrolyte disturbances, diabetes and ulcers. Euphoria, which may be due to disseminated sclerosis, does not require cessation of the medications, but psychosis does. Rarely, patients on oral "maintenance" glucocorticoids must be changed to another drug because of developing myopathy. Methylprednisolone and prednisone (Meticorten) have been used extensively and found to be satisfactory for long term adminis-

Space limitations preclude publication of *The Management of Multiple Sclerosis* in a single issue. Therefore, this article is being published in three segments. Part I appeared in the January, 1969 issue of *Missouri Medicine.* Part II is included here. Part III will be published in the next issue.

The extensive Bibliography also has been divided, but reference numbers are continuous from installment to installment.

The following outline will give the reader an overall view of Dr. McFarland's work:

Part I

General Management

Part II

Serial Neurologic Examinations and Use of Corticotropin and Glucocorticoids

Part III

Apparent Suppression of Symptoms by an Estrogen-Progestin Compound tration. Patients are informed that they are taking steroids and instructed to report this to other medical persons with whom they have contact.

Summary

A plan for following multiple sclerosis at clinic visits, emphasizing quantitative methods of examination, is presented.

Corticotropin can temporarily halt progression or hasten the onset of remissions in many patients. It is most beneficial in retrobulbar neuritis and in disabling relapses which are treated early and less efficacious with chronic progressive disease or severe debilitation with irreparable central nervous system damage. Nevertheless, patients with severe debilitation, who have never received corticotropin, may be given a course of the drug. If patients relapse soon after a short treatment with corticotropin, "maintenance" oral glucocorticoids are tried for prevention. Dosages for both corticotropin and "maintenance" therapy are prescribed.

The contraindications and precautions to corticotropin and glucocorticoid treatment are outlined.

Acknowledgement: The author wishes to express his appreciation to Dr. Armin Haerer for his assistance in developing Part II of this paper.

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Lesser Peritoneal Sac Abnormalities

(Continued from page 109)

the hernia is observed fluoroscopically, the gallbladder rises completely up and over the apex of the bulb rather than simply swinging in an arc anterior to it. Fluoroscopic attempts at reduction were unsuccessful in the case illustrated (Fig. 9). The patient was in no distress during this examination. Subsequent studies showed the hypermobile gallbladder in a normal position.

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Kindred With Partial Trisomy-B

(Continued from page 112)

Cytogenetics should be part of the evaluation of grossly abnormal children. In many cases, transmissible chromosomal abnormalities will be identified in time to supply invaluable prognostic data for genetic counseling.

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Anaphylactoid Purpura: Unusual Manifestations

Case Reports

Chronic leg ulcers have been described in a number of hematologic diseases as follows: sickle cell anemia, congenital hemolytic anemia, idiopathic thrombocytopenic purpura, pernicious anemia, polycythemia and Banti's syndrome.[1] Osler[2] apparently was the first to describe the association of leg ulcers with Schonlein-Henoch purpura when he described leg ulcers in a 14-year-old girl having this disorder. Anaphylactoid purpura is a disorder affecting young people and is unusual in adults. The authors recently have treated two adult patients with anaphylactoid purpura, both having chronic leg ulcers and one having grand mal convulsions during the acute illness. A review of the literature revealed only three previous cases of adults having leg ulcers associated with non-thrombocytopenic purpura[3] and no reference of an adult having convulsions associated with this disorder.

Case Reports

Case # 1. An 89-year-old white woman was admitted to St. Luke's Hospital for evaluation of chronic, multiple leg ulcers and microscopic hematuria. About one month before admission, she had developed purpuric lesions on her lower legs which had persisted with several areas becoming necrotic and ulcerative.

The past history revealed that the patient had had radium treatment of an endometrial carcinoma approximately 20 years ago. A cholecystectomy was performed in 1946 and fulguration of a bladder papilloma was performed in 1965. She had been taking digitalis for several years for mildly symptomatic congestive heart failure. There was no other significant history and, in particular, no history of allergic reactions or other drug ingestion.

Physical examination revealed a cheerful, alert patient with a blood pressure of 180/80, pulse rate of 74 and regular and respiratory rate of 20/minute. The positive findings included a grade II/VI holosystolic murmur at the apex and left sternal border. The liver was palpable 2 cm below the right costal margin. There were scattered purpuric lesions over the legs and thighs. The central areas of some of these purpuric lesions were necrotic with superficial ulceration. The ulcers ranged from 0.5 cm to 1.5 cm in diameter, had rolled edges and were surrounded by erythema and induration. The pedal pulses were 3+ and no varicosities were present. A Rumpel-Leede test was negative.

Laboratory studies disclosed a hemoglobin value of 10.7 gm/100 cc and a hematocrit value of 32%. The white blood count was 4,900 with a normal differential cell count. The urinalysis showed a moderately positive benzidine test with albuminuria (4+) and 100 to 120 red blood cells per high power field. The platelet count was 180,000. The bleeding time was one minute and the Lee-White clotting time was six minutes. Clot retraction was 41% during the first hour with normal in our laboratory being 20% to 65%. The prothrombin time was normal. Serum proteins, alkaline phosphatase, SGOT, chest x-ray and KUB film were all negative. Electrocardiogram showed only left ventricular hypertrophy.

An intravenous pyelogram, cystoscopy and retrograde pyelogram failed to reveal any abnormality to account for the hematuria. Bone marrow examination was normal. A skin biopsy from the left lower leg showed a granulomatous inflammatory reaction consisting primarily of fibrocytes and lymphocytes. Considerable vasculitis was present as evidenced by muscular proliferation and narrowing of numerous arterioles.

Although anaphylactoid purpura is a disorder affecting young people and is unusual in adults, the authors report on two adult patients with anaphylactoid purpura. Both had chronic leg ulcers and one had grand mal convulsions during the acute illness. The authors state that they could find reference to only three prior cases of leg ulcers occurring in adults and that no previous report could be found regarding an adult having grand mal convulsions associated with this disorder. Dr. Catlett is from the Department of Internal Medicine at St. Luke's Hospital, where Capt. Stuber was an Intern at the time this paper was written.

The leg ulcers did not respond to local measures and the hematuria persisted. After prednisone was administered for one week at a rate of 40 mg daily, the ulcers began to heal, no fresh purpuric lesions appeared and the hematuria ceased. The patient was dismissed on a maintenance dose of prednisone and subsequently had a complete recovery.

Case # 2. The patient was a 54-year-old white woman who had been in good health until an ulcer developed on the lateral aspect of her left lower leg as shown in Fig. 1. Two days after the ulcer appeared, she noticed some red spots on both legs. On the following day, she complained of malaise, headache and vomiting. These symptoms persisted. Two days later, vertigo, hematochezia and a grand mal convulsion precipitated her admission to the hospital.

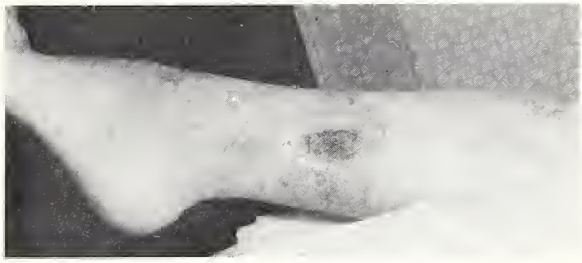

Fig. 1 Case # 2. The necrotic ulcer on the lateral aspect of the leg. The purpura had resolved some, but is still apparent.

The past history and review of systems revealed no other significant information except for a six-month history of headache. She had been receiving no medication.

Initial physical examination disclosed an acutely ill woman in a post-ictal state. Her blood pressure was 160/90. The pulse rate was 120 and her temperature was 99.4 F and was taken orally. The right tympanic membrane had an old perforation. The lungs were clear, and the heart was normal except for the sinus tachycardia. There was generalized abdominal tenderness. A dark necrotic ulcer was present on the lateral aspect of the left leg. There were numerous coalescent purpuric areas on the legs and thighs. These were 3 mm to 6 mm in diameter with red punctate centers surrounded by clear zones and more peripherally by circular erythematous areas. Black stool was discovered by rectal examination and chemically tested positive for blood. The neurologic evaluation was completely within normal limits. Reaction to a Rumpel-Leede test was negative. Lumbar puncture yielded clear fluid under normal pressure. The spinal fluid contained no cells and the protein content was 60 mg/100 cc with the sugar content 88 mg/100 cc.

Laboratory investigation included a hemoglobin value of 14.4 gms/100 ml with a hematocrit value of 43%. The white blood count was 14,500 cells with a normal differential cell count. Results of the initial urinalysis was normal except for a few granular casts. The blood glucose, BUN, serum protein electrophoresis, chest x-ray, barium enema and intravenous pyelogram were all normal. The electrocardiogram showed only nonspecific ST segment and T wave changes.

The bone marrow was normal. The prothrombin time was normal. The platelet count was 119,000/cu mm and 304,000 cu/mm on two different days. The bleeding time was one minute and the Lee-White clotting time was 11 minutes. Clot retraction was complete in two hours.

This patient remained stable with normal blood pressure. On the third hospital day, she had a grand mal convulsion which was observed by one of the authors. Results of repeated neurological evaluations were negative. On the same day as the convulsion, the patient developed hematuria, hematemesis and minimal hemoptysis.

She was given Chlorambucil at a rate of 8 mg daily for eight days in an attempt to interfere with the immune mechanism. Prednisone at a rate of 60 mg daily was given for 14 days in decreasing dosage. The hemoptysis, hematemesis and hematuria ceased. No more purpuric lesions appeared and the leg ulcer began healing. She complained of right abdominal pain which was subsequently found to be an abdominal wall hematoma which subsided following incision and drainage. She was dismissed on the 33rd hospital day with no medication. Subsequent visits showed the leg ulcer to heal gradually and the patient to be completely well. This patient has now been observed for four years following this illness and has had no more seizures, no hematemesis or hematochezia and no neurologic symptoms or findings.

Discussion

These two patients presented with purpura for which no specific etiology could be found. They both responded clinically to steroid therapy. Patient # 1 had purpura with multiple leg ulcers and microscopic hematuria. The clinical course and skin biopsy seemed to support the diagnosis of anaphylactoid purpura. Patient # 2 had purpura with a single large leg ulcer, hematemesis, hematochezia, hemoptysis and hematuria with two grand mal convulsions. Although articular symptoms were not present, this patient had many features of Schonlein-Henoch purpura.

Anaphylactoid purpura is a form of nonthrombocytopenia purpura in which blood coagulation factors are normal and a vasculitis is found microscopically in many cases. Robert Willan described this disorder in 1808, but it was not recognized as a specific clinical entity until 1837 when Schonlein referred to the association of joint symptoms and a rash as peliosis rheumatica.[4] Henoch emphasized the gastrointestinal symptoms associated with the syndrome in 1847.

Osler[5] became particularly interested in this disorder and reported many cases. He acknowledged that he had collected a "motley group of cases," but his meticulous histories have proved to be very valuable in subsequent reviews of this disorder.

Much of the writing since Osler has been regarding etiology. The common proposals as etiologic agents include the group A beta hemolytic Streptococcus,[4, 6, 7] which was disputed by Bywaters,[8] food allergy [9-11] and general allergic or immunologic factors.[12]

Gendel[1] discussed chronic leg ulcers in disorders of the blood in 1948 and described two patients with associated leg ulcers and splenomegaly. One patient had a typical hemolytic anemia with splenomegaly and the other had cirrhosis with congestive splenomegaly (Banti's syndrome). He proposed that all blood diseases in which leg ulcers have been noted were accompanied by splenomegaly and thought that this had some etiologic significance. Apparently, Gendel was unaware that Osler had described leg ulcers in a case of Schonlein-Henoch purpura in 1914. Although no platelet count was available in this 14-year-old girl, Osler's description is compatible with the Schonlein-Henoch syndrome. In 1955, Horler and Truelove[3] reported three cases of nonthrombocytopenic purpura with associated leg ulcers. These were the only cases of adults having these associated disorders that were found in the literature. These patients were 57, 62 and 66 years of age. One had classical Schonlein-Henoch purpura, one had anaphylactoid purpura believed secondary to phenylbutazone and one had nonthrombocytopenic purpura which was believed to be of an allergic nature.

Although Osler[2] described a 15-year-old boy with transient hemiplegia accompanying Schonlein-Henoch purpura, Gracie[13] was the first to report convulsions associated with this syndrome. Since then, other cases have been reported.[14-16] All of these cases have been in children. Without postmortem examination, it is difficult to be certain that the convulsions result from involvement of the nervous system by the primary disease process. This is especially true when renal disease and hypertension may accompany nonthrombocytopenic purpura. The authors believe it would be reasonable to speculate that a vasculitis could account for the convulsions as well as many other manifestations seen in nonthrombocytopenic purpura.

Summary

Two unusual phenomena were observed in two adult patients with anaphylactoid purpura. Both patients had leg ulcers and one patient had two grand mal convulsions during her acute illness. Although leg ulcers have been described in anaphylactoid purpura in children, the authors could find reference to only three prior cases occurring in adults. No previous report could be found of an adult having grand mal convulsions associated with anaphylactoid purpura.

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Iron Deficiency Anemia 'Refractory' to Oral Iron

Case Reports

TREATMENT OF IRON DEFICIENCY ANEMIA should not be a major problem since a standard course of therapy with any of a number of oral iron preparations should give a prompt and complete response. Nevertheless, referral clinics frequently see patients referred for iron deficiency anemia "refractory to oral iron." The purpose of this paper is to review the explanations for these treatment failures using cases seen at the University of Missouri Medical Center during the past year as examples.

WRONG DIAGNOSIS

Unfortunately, iron is given to many anemic patients without adequate study to establish a diagnosis of iron deficiency. The anemias associated with chronic inflammation or renal disease frequently are treated with iron, for example, and treatment failure is to be expected in these instances. The following case represents a different and more difficult type of problem in diagnosis:

CASE REPORT

A 67-year-old white man was deferred to the University of Missouri Medical Center for evaluation of anemia which was first noticed ten years previously. He had been hospitalized twice previously because of anemia, but no etiology was discovered. There had been no response to treatment with either oral or parenteral iron. The patient was of Northern European extraction, but his daughter and a sister were reported to have "difficult" anemias. The only positive physical finding was the spleen which was palpable 4 cm below the costal margin with inspiration.

Laboratory studies showed a hemoglobin level of 11.5 gm/100 cc with an hematocrit value of 37%. The rest of the complete blood count was normal. The blood film showed many target cells with marked anisocytosis, poikilocytosis and hypochromia of the red blood cells. The red blood cells showed increased resistance to osmotic lysis. Hemoglobin electrophoresis was unsatisfactory and the patient has been lost to follow-up. His daughter reportedly has been diagnosed as having "thalassemia." On the basis of these studies, a diagnosis of thalassemia minor was made.

The red blood cells of patients with thalassemia are deficient in hemoglobin and can give the appearance of iron deficiency. It is important to make this diagnosis so that unnecessary tests and courses of iron can be avoided. Patients with anemia who fail to respond to oral iron should be restudied to be sure that the diagnosis of iron deficiency was correct.

MALABSORPTION OF IRON

Malabsorption frequently is cited as the reason for treatment failure in patients who subsequently respond to parenteral iron.[1–5] A review of these cases and of the literature, however, did not reveal any instances of documented iron malabsorption occurring as an isolated defect. Detailed absorption studies of such patients could add much information to our present imperfect understanding of the mechanisms of iron absorption, but such studies have not been reported. Iron malabsorption, in the absence of other absorption defects, must be very rare, and it seems likely that the oral iron failure in most of the cases in which this mechanism is blamed can be explained by other means.

Iron deficiency anemia is common in the postgastrectomy patient and usually is due to a combination of decreased iron absorption and blood loss.[6] Iron absorption studies have shown decreased absorption of food (or hemoglobin) iron in these patients, but therapeutic amounts of inorganic iron usually are absorbed well enough for a good response.[7, 8, 9] Patients with achlorhydria may have similar findings.[10] These patients, then, rarely should appear as treatment failures although frequent courses of iron may be required to maintain a normal hemoglobin level. Iron malabsorption, of course, can occur in various malabsorptive states as illustrated by the following case report:

CASE REPORT

A 59-year-old white man was admitted for evaluation of anemia of two- to three-year duration that had responded to parenteral iron and liver extract after failing to improve with oral iron. He gave a 15-year history of duodenal ulcer disease, but denied any melena or hematemesis. Four months prior to this admission, he was admitted because of symptoms of duodenal ulcer with possible obstruction associated with a ten-pound weight loss and iron deficiency anemia. X-rays showed a hiatus hernia and a "deformed and irritable" duodenal bulb. The pancreas, bowel and liver were grossly normal at celiotomy and a liver biopsy was normal. During follow-up, his symptoms of epigastric pain persisted and the hemoglobin and hematocrit gradually dropped, leading to admission for reevaluation.

The patient took heavy doses of aspirin intermittently for recurrent headaches, but he denied noticing any change in stool color or characteristics. Ten days prior to admission, he had received an intramuscular injection of iron and liver extract. Physical examination showed pallor, but it was not remarkable otherwise.

Laboratory data showed the following: Hemoglobin, 6.8 gm/100 cc; hematocrit, 29%; RBC, 5,400,000/cu mm; MCV of 54 cu μ; McHbC, 23%; reticulocyte count, 6.1%; normal WBC and differential; serum, Fe 17 μg/100 cc; and iron binding capacity 459 μg/100 cc. Stool guaiac tests initially were negative, but became positive after a two day challenge with 600 mg of aspirin every four hours. Complete gastrointestinal x-rays showed only a slight duodenal bulb deformity: the small bowel was normal.

The reticulocyte count fell to 2%-3% during the first few hospital days and remained at this level in spite of a two-week course of oral ferrous sulfate, 300 mg q.i.d., given while the patient was in the hospital. There was no hemoglobin or hematocrit response to this treatment. Further investigation revealed low serum carotenoids, an abnormal d-xylose absorption test, elevated fecal fat and a capsule small intestinal biopsy showed villous atrophy. A diagnosis of adult celiac disease was made, and the patient was placed on a gluten free diet with improvement in his gastrointestinal symptoms. With parenteral iron therapy, the hemoglobin and hematocrit have improved. The iron deficiency anemia in this case appears to be due to a combination of blood loss and poor absorption with the failure to respond to oral iron being explained by the malabsorption syndrome. The reticulocytosis on admission was undoubtedly due to the parenteral iron given previously. In this case, failure to respond to oral iron was the key finding that led to an early diagnosis of a malabsorption syndrome.

CONTINUED BLOOD LOSS

Normal individuals will respond to iron therapy by producing about 0.3 gm/100 cc of hemoglobin daily.[11] Thus blood loss in the range of at least 50 ml to 75 ml per day would be required to mask a therapeutic response. Oral iron medication turns the stool dark and gastrointestinal bleeding may not be recognized by the patient, but the guaiac test is not affected by iron medication and will detect continued bleeding. Blood loss may be intermittent, however, and in these circumstances the reticulocyte count can be of assistance since a reticulocytosis should occur even if the hemoglobin response is being hidden by blood loss. The following case demonstrates this problem:

Patients with a diagnosis of iron deficiency anemia "refractory" to oral iron frequently are referred to hospitals for hematological consultation. The author reviews and discusses possible explanations for these treatment failures using illustrative case histories from the University of Missouri Medical Center. Dr. Reed was Assistant Professor of Internal Medicine at the University of Missouri School of Medicine at the time this paper was written. He now is Chief of the Hematology Section, Ann Arbor Veterans Administration Hospital and Assistant Professor at the University of Michigan School of Medicine.

CASE REPORT:

A 46-year-old white woman was referred to the University of Missouri Medical Center for evaluation of "refractory" anemia. She had had menorrhagia for the past two years with five to six days of heavy flow every two weeks. She also had noted some intermittent bleeding from hemorrhoids. Hypothyroidism had been diagnosed nine months prior to this evaluation, but treatment with replacement thyroid had had no effect on the anemia or bleeding. She had been forced to discontinue oral iron because of gastrointestinal intolerance after trying many different preparations and had received numerous intramuscular iron injections which allegedly had had no effect on her hemoglobin levels.

Physical examination was unremarkable except for internal hemorrhoids. The admission blood count showed a hemoglobin level of 9.6 gm/100 cc, an hematocrit value of 31%, a normal white blood count and differential and a reticulocyte count of 1.3%. The serum iron was 12 μg/100 cc with an iron binding capacity of 386 μg/100 cc. A bone marrow specimen showed decreased iron stores and complete gastrointestinal evaluation was normal.

During the first few days in the hospital, the patient had very heavy menstrual flow and the hemoglobin level dropped to 7.5 gm/100 cc with an hematocrit value of 27%. She could not tolerate oral iron, and a course of intramuscular iron was begun. Five days later, the reticulocyte count was 5.6%. She was discharged to complete a course of parenteral iron calculated to both replace her hemoglobin deficit and replenish iron stores. Six weeks later, she returned for uterine curettage and the hemoglobin level was 11.9 gm/100 cc with an hematocrit value of 39%. She had not had any uterine bleeding during this six weeks.

This patient had received both parenteral and oral iron, but the amount of iron given was not sufficient to correct continued blood loss.

Failure to Take the Medication

A disquieting number of patients fail to take prescribed medications,[12] but this is not as common a cause of treatment failure with iron as might be expected. The usual dosage schedule of three or four ferrous sulfate or gluconate tablets daily provides an excess of iron so that a therapeutic response can be obtained even if the patient skips the medication part of the time. This cause of "refractiveness" frequently is difficult to prove. In the following case, however, it seemed the most logical explanation.

Case Report

A 41-year-old white woman was referred to the University of Missouri Medical Center because of a "refractory" anemia of 18 months' duration. Three years prior to this admission, menorrhagia and iron deficiency anemia had been diagnosed. The menorrhagia subsided without recurrence, and the anemia responded to oral iron therapy. Eighteen months later, she again was found to be anemic, but she denied menorrhagia or other signs of bleeding. This time, she did not respond to oral iron and received transfusions of whole blood on several occasions. She also was given injections of vitamin B_{12} and iron "without effect." She denied excessive menstrual flow or signs of bleeding during this period.

Physical examination showed a very nervous and hyperactive woman. The only positive physical finding was an enlarged liver extending five to six centimeters below the right costal margin. Laboratory studies showed the following: Hemoglobin, 8.1 gm/100 cc; hematocrit, 29%; mean corpuscular volume, 73 cu μ; mean corpuscular hemoglobin, 28%; serum iron 19 μg/100 cc; and iron binding capacity, 397 μg/100 cc. Liver and thyroid function studies, complete gastrointestinal x-rays, sigmoidoscopy and liver biopsy were within normal limits.

A psychiatry consultant made a diagnosis of "manic state bordering manic-depressive psychosis." Regular outpatient psychotherapy was begun. The patient was placed on oral ferrous sulfate, 300 mg t.i.d. Two months later, the hemoglobin level was 15.4 gm/100 cc with an hematocrit value of 46%. She later admitted that she previously did not take her medication regularly. We postulated that, consciously or subconsciously, she neglected to take her medication so that visits to her doctor and various treatments would be continued. With regular psychotherapy, this need was satisfied and she took the iron tablets regularly. The hepatomegaly has receded gradually and is still unexplained although it was suspected that it represented the residual of a subclinical serum hepatitis.

Ineffective Iron Preparation

As mentioned above, there are a large number of effective iron preparations available although doubt has been expressed regarding enteric coated or slow release forms.[13-15] Because iron is not well absorbed beyond the duodenum, this form of therapy may release the iron too far down the gastrointestinal tract for absorption. A type of iron marketed for pediatric use recently has been found to be ineffective.[16, 17] Our experience supports the doubts raised about enteric coated preparations.[18]

Case Report

A 39-year-old white woman was admitted to the University of Missouri Medical Center with upper gastrointestinal bleeding. The bleeding stopped with diet and antacid therapy, and she was discharged on oral iron because of residual iron deficiency anemia. An enteric coated iron preparation was used because of previous intolerance to oral medications and the suspected presence of a peptic ulcer as the cause for her bleeding.

At the time of discharge, the hemoglobin was 7.6 gm/100 cc with an hematocrit of 26%. After two weeks of enteric coated ferrous sulfate, 300 mg q.i.d., the hemoglobin level was 7.1 gm/100 cc and the hematocrit value 24%. She then was switched to plain ferrous sulfate. Two weeks later, the hemoglobin level was 9.8 gm/100 cc with an hematocrit value of 34%.

While enteric coated or sustained-release forms of iron may be effective in some cases, they cannot be considered reliable. A trial of plain ferrous sulfate or gluconate is always indicated if there is any question about the type of iron the "refractory" case has received.

Associated Disease

Patients with iron deficiency may have other conditions that prevent a response to iron therapy. An example would be iron deficiency secondary to bleeding from a gastrointestinal neoplasm. The malignancy may inhibit erythropoiesis and prevent a normal therapeutic response. A second or underlying disorder should always be ruled out in refractory iron deficiency anemia.

Summary

The possible explanations for oral iron failure are as follows:

1. Wrong diagnosis
2. Malabsorption syndrome
3. Continued blood loss
4. Failure to take the medication
5. Ineffective iron preparation
6. Associated disease

A therapeutic trial of ferrous sulfate or gluconate with regular reticulocyte counts and hemoglobin and hematocrit determinations frequently will resolve a "refractory" anemia and avoid unnecessary parenteral therapy. If a closely observed trial is unsuccessful, further study is indicated to determine which of the above conditions is responsible.

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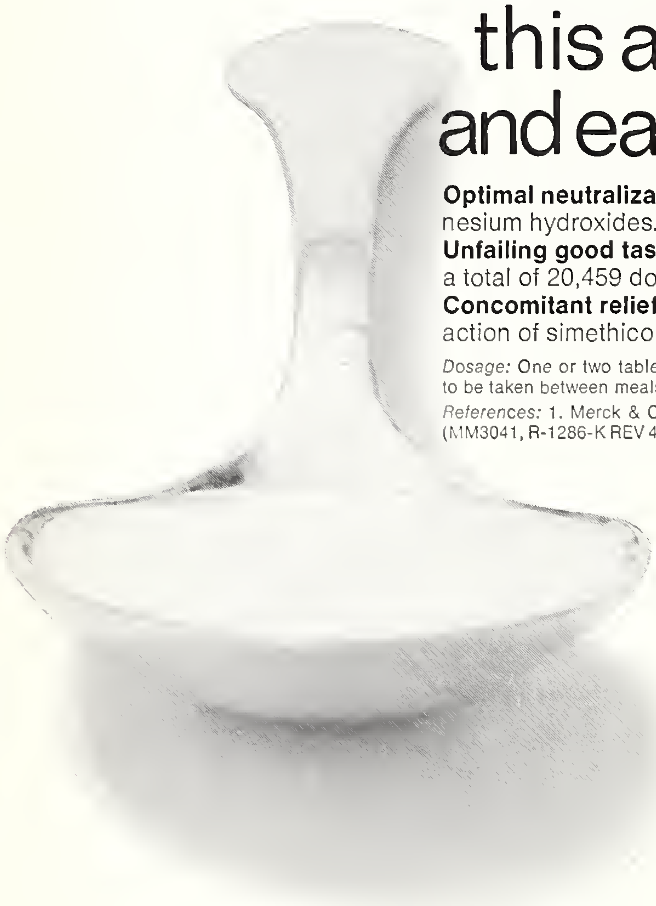
Dr. Howard A. Prentice, president, reported on the Council's activities at the midyear meeting of the Pharmaceutical Manufacturers Association in New York. He was assisted by Eugene McLoughlin, staff director of the Council.

The Council on Family Health is a nonprofit organization sponsored as a public service by leading members of the drug industry to promote home safety and family health. The program covers the whole realm of home safety. The staff works with the communications media, medical and lay organizations in the health and safety field and government departments and agencies.



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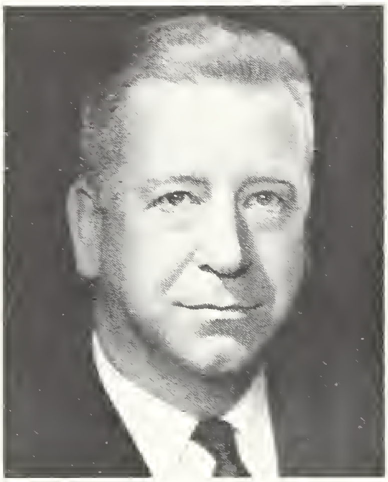
President's Message

The following telegram was received from Wilbur J. Cohen, Secretary of Health, Education and Welfare on Jan. 4, 1969:

> "I have today promulgated the existing rate of $8.00 a month for the supplementary medical insurance program of Medicare—$4.00 for the insured persons and $4.00 for the federal government for the period July 1, 1969 to June 30, 1970. I took this step in the face of actuarial advice that physicians' fees are likely to increase substantially next year and in 1970 over current levels. I concluded, however, that it is both feasible and desirable to limit the liability of the Medicare program. To stay within the new rate will require restraint on both fees and utilization by all parties concerned. I urge your wholehearted cooperation on this important matter."

It is my opinion that this is a real political ploy by a man who seems to be against our profession and apparently prefers not to leave his job gracefully, but must take a "parting shot." I understand that his decision stands until mid-1970. So far as I can discover, no comparable telegram was sent to hospital or nursing associations, osteopathic associations and the like, but the telegram quoted above was sent only to the President of the AMA and the 50 presidents of state medical associations.


David N. Kerr, M.D.

It appears that Mr. Cohen is placing the whole responsibility on our profession in order to "put the finger on us" if Medicare fails, and he does so even against the advice of his actuaries that some increase should have been made in the "premium." The obvious answer is that we will continue to provide quality practice. If the other economic spirals are controlled, our fees obviously will follow suit.

At the same time, this move points up the necessity for strengthening our own organization and for looking into the whole picture of M.D. fees as an entity in the whole health package. To this end, we have been working on reorganization, forward planning and related subjects. A good many of you will have had a chance to express yourselves before this goes to press.

Again, I emphasize that we must have meaningful statistics and facts to present to those who would regiment us.

Woman's Auxiliary

I would like to dedicate this article to Mrs. Willard Bartlett for her dedication to the organizing of the Woman's Auxiliary to the Medical Association. Mrs. Bartlett, who still resides in St. Louis, served as President of the Woman's Auxiliary to the Missouri State Medical Association in 1928-1929.

The idea of a Woman's Auxiliary to the Medical Association came from Texas and was presented to the American Medical Association during the meeting in St. Louis in 1922. The matter was referred to Mrs. Willard D. Bartlett, Chairman of the Woman's Committee, and a meeting was planned at the Town Club. Two hundred women attended this meeting.

Mrs. E. F. Butler, President

At the meeting in San Francisco the following year, the House of Delegates approved the formation of a Woman's Auxiliary to the American Medical Association. Mrs. Bartlett was appointed organizer for Missouri.

When the Missouri State Medical Association met in Springfield in May, 1924, Mrs. Bartlett presented the Auxiliary idea to the House of Delegates, who authorized the organization and the appointment of Mrs. Bartlett as State Organizer.

At this time, also, the Greene County Medical Auxiliary was formed with Mrs. C. B. Elkins as President. This was the first county auxiliary in the state of Missouri.

By the time the American Medical Association met in Chicago in June, 1924, Mrs. Bartlett had perfected plans for organization and was able to announce 23 counties in which preliminary organization work had been done. The meeting was held at the Edgewater Beach Hotel and 14 Missouri women were present. Mrs. Bartlett presided, and Mrs. George H. Hoxie of Kansas City was elected President.

On the following day, the organization plans of Mrs. Bartlett were presented to the National Auxiliary and were adopted.

On October 8, 1924, the first State Executive Board meeting was held in St. Louis. The attendance at this meeting was the best evidence of the interest and splendid response of the women. Eighteen of the 22 members were present, representing 18 counties.

Members of the Executive Board of the St. Louis Auxiliary also were in attendance and were hostesses at the round table luncheon at which the county presidents made their reports. Mrs. Bartlett spoke briefly on the "Auxiliary Idea," a recognition of the spirit of goodwill as the basis and keynote for all future undertakings of the organization.

Under the leadership of Mrs. Hoxie, an educational program was developed. It was submitted to the Chairman of Public Policy for the Missouri State Medical Association and approved by the Chairman and the Medical Association. It won the respect of several outstanding public health men in the country and, afterwards, was adopted as the official program of the National Auxiliary.

The Woman's Auxiliary to the Missouri State Medical Association says "thank you" to Mrs. Bartlett and to the Medical Association for making this dream a reality.

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EDITORIALS

ACTIVISM ON THE MEDICAL CAMPUS

(The following editorial appeared in the October, 1968 issue of The Southern Medical Journal. *It was written by the Editor, R. H. Kampmeier, M.D. Although it may be considered "unpleasant" by some readers, the Editors believe it will prove to be thought-provoking for all.)*

In June, it was my privilege to attend the Centennial Commencement on the Berkeley Campus of the University of California—the campus in this country from which emanated much of the activism which was to spread to many other college campuses within the next couple of years.

As has been the custom for some years, two outstanding students of the graduating class read brief addresses. Miss Toni Taylor[1] in her "The Time Is Now" pled for breaking down the confining walls of *time* and all it implies in deadlines and duties. She suggests, "Perhaps as a goal for all of us, the implications of the obscene four-letter word *time* could be substituted for a more sensitive one *live*, and the next occasion when we are moved to ask ourselves—'How much time will this take me'—we will instead ponder—'How much will this enable me and more important—those around me—to live.' "

Jerry S. Goren,[2] of the graduating class and one who has worked with criminals in San Quentin prison, addressed the audience upon "The Committed Generation." He questions the reactions of friends and relatives on this day, upon his scholastic record and anticipated graduate education summed up as, "You are a success—Congratulations!" His question, "Is this really success? Is this what the last four years were all about? I think not!" He reviewed the motivation of his contemporaries all over the nation taking on roles in Appalachia, the Peace Corps, tutoring and counseling in the ghettos, helping to elect chosen political candidates, working to end poverty and war. His final cry was, "The Class of 1968 has committed itself to action, to action aimed at creating a better world. Our commitment deserves more than your praise; it deserves your help." Earlier, he had qualified his demand for activism by "But action nurtured by a sensitivity to the ideas and beliefs of others, tempered by thoughtful introspection, can be a positive and constructive force in human affairs"—and "We must act, but this action must be accompanied by constant questioning and an awareness of the implications that our actions may have on others."

No matter what our immediate reactions as mature physicians may be to the activism sweeping through our younger generation, we must pause and consider it thoughtfully. Many of us of the older generation are sympathetic with the writer who said that today's revolutionaries do not "want to break windows in order to let the fresh air in," but that they are "hopelessly in love with the sound of smashing glass." On the other hand, one of the younger generation, a pragmatic politician, David Ellis,[3] Governor of Washington, speaking for the New Breed, said in the keynote speech at the Republican Convention, "People today are interested in action, not clichés; problem solving, not promise making; an active concern for the future, not a passive contentment with the past."

Berkeley and Columbia have offered news headlines, the paradigms of today's campus revolutions challenging the present *establishment* whether in ethics, morals, sex, religion, patriotism or politics. Activism and the "new breed" and their challenging thoughts have not passed up the medical campus. The challenges to the medical schools and the practicing profession have been more mature, devoid of fanfare and noise and have not made headlines. Nevertheless they are there, of which some school faculties are well aware, but of which busy practitioners may have heard only distant rumblings.

Several years ago, new organizations sprang up on medical campuses. Someone has said that they are fighting to retain an idealism that traditionally flags as young men and women move from the "noncynical" freshman and sophomore years to the "cynical" junior and senior years.

The vocal activists are organized now as Student Health Organizations (SHO) in some 70 medical schools—a loose confederation, nationally, with members drawn from students of medicine, nursing, dentistry and social work. Members' activities have ranged during the summer, through community health projects in the poverty areas of California, the ghettos of New York and the slums of Chicago.[4] They have interpreted to the needy how to get medical help, attempted to "educate" people in medical matters and to eliminate health hazards in the home and on the job. In 1967, OEO gave grants totalling $600,000 for such projects and possibly more to come in 1968. Some say that faculty members of medical schools "usually have little first-hand experience with the community's health care needs"—and so the students are going out to explore these needs.[5] At the University of Kansas, the Cross-Lines project started by the medical students has received a $39,000 grant from the AMA to supply executive office personnel for its continuation, with moral support by the Student AMA which considers it a model for similar projects springing up at other medical schools. Dean George Wolf, the University of Kansas Medical Center, answers queries and criticisms of such extracurricular activities by saying, "Until I can define solutions to these problems and implement them, I cannot deny the students the opportunity of tackling them."[6]

In a penetrating analysis entitled "The Medical Student: What He Wants and Needs Versus What He Gets," Dr. Harold J. Simon[7] points up what all of us who have sat on Admission Committees know, that prospective medical students have "deep concerns with the physical, emotional, social and cultural problems of people, expressing these concerns in operational terms." He then says that the idealistic freshman soon learns that he expected too much and that "faculties retreat from detailed probing into the very difficult areas which concern man as a living, feeling, social organism." Instead, the student is introduced to the laboratory to study experimental models—lower animals, tissues, enzymes-systems and molecules; his early exposure to clinical medicine by contrast reveals its inexactness. Thus, the "broadly-oriented, humanistically inclined yet relatively uncritical student" is transferred "into a critical analytic, logical and scientifically oriented physican." Though the accompanying cynicism may be regrettable, many believe "this loss of idealism is of minor importance in comparison to the gains in other directions."

Here, then, is the quarrel between certain spokesmen for medical students and faculties—broadly a dissension over humanistic medicine vs scientific medicine. Demands by students that they have a role in planning curricula have been made; they have been faced and been met to some extent in certain medical schools.

Not only have medical students challenged the medical schools and their faculties, but they have challenged equally the *establishment* of the medical profession. Though the Student AMA (SAMA) has so far resisted the demands of some of its members to change its name as evidence of independent thinking, it has clearly "staked out" its right of independence. At its 18th annual meeting in May of this year, SAMA established a standing committee on community health care "to arrive at guidelines concerning health care for the poor, student responsibility in social-economic health programs as part of the medical curriculum and the use of students in state and federal health care programs as one answer to health manpower problems."[8] David A. Kindig,[9] medical student at the University of Chicago and President, said in an interview with the *AMA News*, "We are new physicians, but we are old enough and mature enough and experienced enough and in a unique position to provide some of the answers that have eluded organized medicine, medical educators and federal agencies concerned with these questions . . . and they are looking for help." . . . "The time to act is now. I hope it won't be said that, when SAMA finally gained a glimpse of her potential role in society, she chose to look the other way."

(The SAMA newsletter of May 25 sets nine projects it will pursue either at a local level or a national one in the coming year, touching upon community and rural health, medical education, evaluation of internships, residency matching program and liaison with the AMA and AAMC.)

The unabashed confidence felt by the young generation was evident as C. Clement Lucas, Jr.,[10] of Chapel Hill and current president of the SAMA, addressed the AMA House of Delegates in June. He asked the AMA to "join us in taking a positive stand in these times of need." He pointed to the spread of the belief among medical students that the AMA has not taken "positive stands" to "clarify or alleviate many of today's health problems," and that unless the medical profession "accepts the challenge of positive action and relevant progressive reform" other organizations will supplant it. His concluding remarks to the AMA House of Delegates were: "With your help we, working with many others, can build a just society, and we can treat effectively the ills of our society—working together, we can be successful."

In their commencement addresses, Roger W. Heyns,[11] Chancellor at Berkeley, and Charles J. Hitch,[12] President of the University of California, each in his own way with well chosen words and thoughts challenged and charged the Class of 1968 in an elegant fashion. Both admitted that to address this class with the platitudes expected of commencement ceremonies of former days—the class that saw the Free Speech Movement—the class whose days "spanned the most turbulent period of campus unrest in our Nation's history," the class whose members are veterans of the affairs of society or experiences in the ghettos, slums and prisons—would be most inappropriate. One[12] reminded the students of their slogan, "Don't Trust Anyone Over 30," as probably referring to attitudes and not chronologic age, and that they, passing that critical dividing line in a few years, must guard against hardened attitudes and that they have a duty in building the bridges necessary to close the inevitable gap between generations and avoid the current wide one in communications and understanding. The students were to recall the extent of the use of pressure tactics, confrontation and force which they have seen used to achieve political and social reforms. The class was warned that social and political reforms won by force is "at a terrible cost to the social fabric of a free society. For once we allow any group to overwhelm our free will with tactics of pressure, even for what may prove to be our general good, we are surrendering the democratic process to the rule of the minority." Though admittedly our society is not flawless, they were told it "works better than others we observe."[12] Chancellor Heyns,[11] in agreeing that institutions of our society must and do change, pointed out that "progress is halting" and that "problems do not always stay solved," and "the solution of one problem often . . . creates several new ones." He said, "the activist mind runs quickly from omnipotence to impotence, from mania to depression, from hope to despair, from energy to passivity." He reminded the Class of 1968 that "whatever headway we make in overcoming social evils is indeed the result of our own skills, our own intelligence, our own knowledge, our own leadership, our own confidence and our own courage." In balancing coercion against persuasion, which he recommended, the Chancellor pointed out that the laborious process of change is because of our way of life—a large degree of autonomy which can be dealt with most effectively by persuasion to gain true progress. He predicted to the Class that most of its members would be in roles of leaders, "leadership demanding commitment to the individual, to his freedom, his dignity, his justice, and by your example, to the power of his individual acts." . . . He charged "you must be capable of self-criticisms and confident that ways can be found to improve things. . . . You must be sources of reassurance to the fearful, respected advisors to the complacent and sources of confident hope to the oppressed and discontented."

I have thought it well that we in medicine should recognize thoughtfully that the provision of medical care will change possibly drastically within a decade and more. This change will seem, much of it, dependent upon new scientific achievements and technics. More subtle will be the changes brought to it by the young physician. The medical student who has been an activist in his "premedic" days—questioning the establishment and flaunting disregard for authority and experience—the member of SHO who has criticized curriculum and faculty—the student who has worked in the slums and ghettos—the delegate and activist in SAMA—will be a different doctor from most of those who read this. Yes, as he acquires the responsibilities of leadership, he will develop many of the attributes described as essential by Chancellor Heyns. As a physician, tempered by his experiences with the sick of the human race, their foibles, idiosyncrasies, mental and personal inadequacies, his idealism will be blunted, but in spite of all this he will bring to the practice of medicine a different viewpoint from one to which we have been accustomed. We will need to accept this, to understand it and to realize that we will witness changes brought by another generation—an activist generation which may seek to fulfill a definition stated by Sigerest, the medical historian, thirty years ago. He said, "Medicine is above all a *social science* that uses the methods of the natural sciences . . . more than just a relationship between a sick person and his physician. Medicine is, above all, the way to improve the health and welfare of nations, the happiness of peoples, and with it peace among nations."

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THE AGREEMENT

You cannot escape your responsibility to society! No matter where you stand upon this earth; no matter what niche you may fill in life—you cannot escape. Agree?

Maybe. But I'd like to ask a few questions.

Shoot.

Who is "you"? What constitutes "responsibility"? Why would you want to "escape" it? Who or what is "society"?

You

"You" means each and every human being in the world—black, white, red or yellow; poor, rich, executive, laborer; educated or uneducated; employed or unemployed; American, Russian, Chinese or Egyptian; Moslem, Hindu, Christian or Jew. Each individual on God's earth is you! We interact and interrelate as individuals to sustain our identity. That is why our relations one to another are so important.

What Constitutes Responsibility?

If you are recognized as a priceless individual, then it follows that every other person on earth is equally endowed with this characteristic. It matters not what difference there may be in intellect or physical features—the endowment is the same. Responsibility involves the recognition of this fundamental concept and the application of its truth in every life situation.

Why Would You Want to Escape This Responsibility?

Primarily, this happens when your individuality is threatened. When living is a constant, searing, frustrating struggle; when you are not recognized as a sensitive, hungry soul; when others consider you inadequate; when you are trapped by an engulfing poverty; when reasonable hope is constantly denied; when injustice and violence are daily experiences—you try to escape! You literally must fight or die! You are caught in the web of despair.

What Is Society?

One might say that society is a spontaneous creation of man necessary to protect his physical existence. The structure of society varies with man's environment, his hereditary characteristics and the degree of his resourcefulness.

Society then is nothing more than an organization of individuals with a common need, a common desire and a common purpose. To exist, to be productive, to live happily, you must be responsible to that society, providing it recognizes you as an individual.

What is the future then of the human race?

The ultimate destiny of the human race, consistent with religious concepts, is that societies as we now know them will disappear from this earth. The world will become one—in spirit and in truth. This is the hope; this is the sustenance of existence. It does not hinge on governments or politics. It does not hinge on philosophical exercises. It hinges on the great and infinite truth that is God!

Yes, I agree. In fact, I could not face this world, if it were not so. Shall we go?

The young man and woman strolled to the entrance of the cave high above the valley. Their eyes scanned the breathtaking view before them. Where once there had stood skyscrapers, there now was rubble. The wind blew and nothing moved. Since that cataclysmic moment of *the bombs*, all had been quiet. They were quite alone!

ROBERT M. MATHEWS, M.D.
Greater Kansas City Medical Bulletin

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Accredited by the Joint Commission on Accreditation and Certified for Medicare

Complete facilities for evaluation and intensive treatment of psychiatric patients, including individual psychotherapy, group therapy, psychodrama, electro-convulsive therapy, Indoklon convulsive therapy, drugs, social service work with families, family therapy and an extensive and well organized activities program, including occupational therapy, art therapy, athletic activities and games, recreational activities and outings. The treatment program of each patient is carefully supervised in order that the therapeutic needs of each patient may be realized.

High school facilities for a limited number of appropriate patients are now available on grounds. The School Program is fully integrated into the hospital treatment program and is accredited through the Asheville School System.

Complete modern facilities with 85 acres of landscaped and wooded grounds in the City of Asheville.

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or

Charles W. Neville, Jr., M.D.

Assistant Professor of Psychiatry and Medical Director

Area Code 704-253-2761

County Society News

SIXTH DISTRICT

COUNCILOR
ROLLA B. WRAY, M.D., NEVADA

West Central Missouri Medical Society

The West Central Missouri Medical Society met at the Nevada Country Club on Dec. 12, 1968. Total attendance at the meeting was 21. The customary social hour preceded the dinner and scientific program. The scientific program was sponsored by the Committee on Trauma of the Missouri State Medical Association of which Dr. E. M Dillard, Springfield, is Chairman. The speakers were Dr. Peter H'Doubler and Dr. James Giffin of Springfield. Their presentation was entitled "Emergency Medical Service—Trauma."

Dr. Giffin spoke of his experiences with a surgical unit in Vietnam and the procedures used there in the emergency treatment of battle casualties. His presentation was well illustrated with color slides. Dr. H'Doubler discussed the emergency room care of the injured patient in the civilian hospital and outlined some of the newer modalities in the treatment of the multiple injured patient. Both presentations were excellent, and this was considered to be one of the outstanding programs of the year.

Following the scientific presentations, the business meeting was called to order by the President, Dr. R. B. Wray. Minutes of the November meeting were read and approved. Correspondence received by the Secretary was presented and discussed. There was no old business to come before the Society.

Dr. William Haynie moved that the Society make its usual $100 contribution to the Missouri State Medical Foundation. The motion was seconded by Dr. Robert Magee and approved.

The Program Committee announced that the next meeting of the Society will be held at Butler on Jan. 9, 1969.

As outgoing President of the Society, Dr. Wray expressed his appreciation to the group for the privilege of serving as President the past year and for the cooperation of the Society members. He then presented the officers for 1969. They are Dr. William W. Haynie, Butler, President; Dr. Carter W. Luter, Butler, Vice-President; and Dr. Roy W. Pearse, Jr., Nevada, Secretary-Treasurer.

There being no further business, the meeting was adjourned.

Roy W. Pearse, Jr., M.D. *Secretary*

In Memoriam

Green, John Reuben, M.D., Independence, a graduate of Rush Medical College, 1911; member of Jackson County Medical Society; aged 87; died Nov. 13, 1968.

Drake, Truman G., M.D., St. Louis, a graduate of Washington University, 1933; member of St. Louis Medical Society; aged 60; died Nov. 22, 1968.

Townsend, Vincent E., M.D., Clayton, a graduate of St. Louis University, 1916; member of St. Louis County Medical Society; aged 75; died Dec. 2, 1968.

Bassett, Robert B., M.D., St. Louis, a graduate of Washington University, 1931; member of St. Louis Medical Society; aged 63; died Dec. 7, 1968.

Tuberculosis? Influenza?
Pneumonia? Leukemia?
Hodgkin's Disease? Syphilis?
Systemic Fungal Diseases?
Chronic Chest Diseases?
or
HISTO?
(Histoplasmosis—"The Masquerader")

A new aid in differential diagnosis
HISTOPLASMIN, TINE TEST
(Rosenthal)
The LEDERTINE™ Applicator with the Blue Handle

Precautions—Nonspecific reactions are rare, but may occur. Vesiculation, ulceration or necrosis may occur at test site in highly sensitive persons. The test should be used with caution in patients known to be allergic to acacia, or to thimerosal (or other mercurial compounds).

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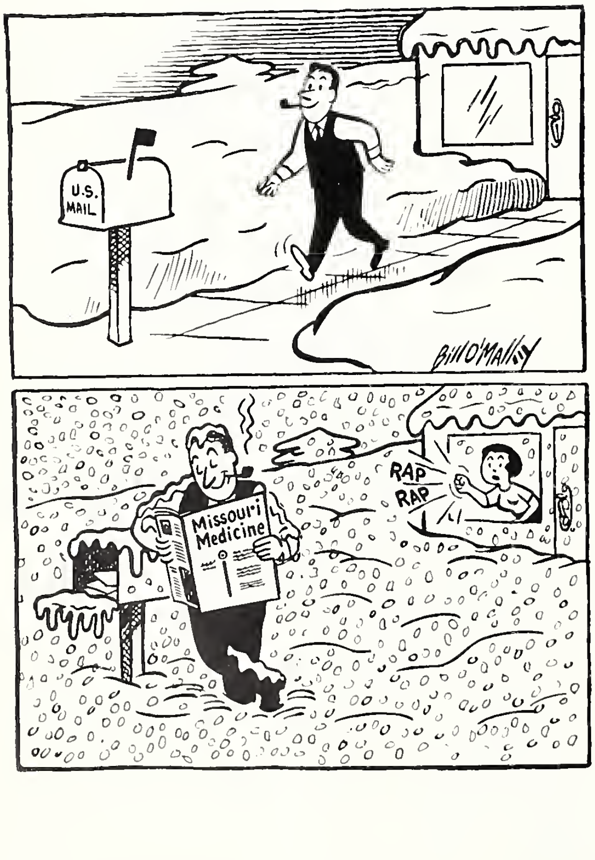
New Members

Louis V. Avioli, M.D., 216 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Avioli is a native of Coatesville, Pa., received his preliminary education at Princeton University and his M.D. degree at Yale University in 1957. He specializes in internal medicine.

Michael W. Brown, M.D., 100 N. Euclid Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Brown is a native of Ardmore, Okla., received his preliminary education at Washington University and his M.D. degree at Washington University in 1962. He specializes in radiology.

Thomas Brugger, M.D., 369 Taylor Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Brugger is a native of Fond Du Lac, Wisc., received his preliminary education at the University of Wisconsin and his M.D. degree at the University of Wisconsin in 1953. He specializes in child psychiatry.

James F. Cooper, M.D., 1245 Graham Rd., Florissant, has become a member of St. Louis Medical Society. Dr. Cooper is a native of Charleston, Mo., received his preliminary education at Baylor University and his M.D. degree at Baylor Medical College in 1960. He specializes in general surgery.



Richard M. Dwyer, M.D., 615 S. New Ballas Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Dwyer is a native of Louisiana, Mo., received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1968. He is in general practice.

Penco Dzundzev, M.D., 3601 S. Jefferson Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Dzundzev is a native of Veles, Yugoslavia, received his preliminary education at the Gymnasium in Veles and his M.D. degree at the Zagreb University in 1955. He is in general practice.

Robert W. Edmonds, M.D., 1718 S. Ingram, Sedalia, has become a member of Pettis County Medical Society. Dr. Edmonds is a native of Clay County, received his preliminary education at the University of Missouri and his M.D. degree at Washington University in 1960. He specializes in pediatrics.

John E. Hoopes, M.D., 660 S. Euclid Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Hoopes is a native of Boone, Ia., received his preliminary education at Rice University and his M.D. degree at Johns Hopkins University in 1957. He specializes in plastic surgery.

Charles A. Johnson, M.D., Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Johnson is a native of Hickory, N. C., received his preliminary education at Duke University and his M.D. degree at Duke University in 1964. He specializes in general surgery.

John V. King, Jr., M.D., St. John's Mercy Hospital, St. Louis, has become a member of St. Louis Medical Society. Dr. King is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1968. He is in the general practice of medicine.

Jerry A. Kirkland, M.D., 8630 N. Oak Trafficway, Kansas City, has become a member of Clay

County Medical Society. Dr. Kirkland is a native of Emporia, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1962. He specializes in internal medicine.

James B. Lee, M.D., 1325 S. Grand Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Lee is a native of Ware, Mass., received his preliminary education at Holy Cross College and his M.D. degree at Jefferson Medical School in 1956. He specializes in internal medicine.

Dominador O. Madrid, M.D., 10245 Reavis Gardens Dr., St. Louis, has become a member of St. Louis Medical Society. Dr. Madrid is a native of Dagupan City, Philippines, received his preliminary education at the Far Eastern University and his M.D. degree at the University of Santa Tomas in 1958. He specializes in surgery.

Alan H. Morris, M.D., 4511 Forest Park Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Morris is a native of Chicago, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1963. He specializes in orthopedic surgery.

Gerald T. Perkoff, M.D., 4550 Scott Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Perkoff is a native of St. Louis, received his preliminary education at Normandy High School in St. Louis and his M.D. degree at Washington University in 1948. He specializes in internal medicine.

Bernard T. Swaykus, M.D., 500 Northwest Plaza, St. Ann, has become a member of St. Louis Medical Society. Dr. Swaykus is a native of Steubenville, Ohio, received his preliminary education at Xavier University and his M.D. degree at St. Louis University in 1962. He specializes in internal medicine and cardiology.

Howard N. Ward, M.D., 114 N. Taylor Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Ward is a native of Mt. Vernon, Ill., received his preliminary education at the University of Illinois and his M.D. degree at Northwestern University in 1962. He specializes in internal medicine.

Walter Washington, M.D., 3737 N. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Washington is a native of Birmingham, Ala., received his preliminary education at Morehouse College and his M.D. degree at Meharry Medical College in 1954. He specializes in general surgery.

Clarence S. Weldon, M.D., 660 S. Euclid Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Weldon is a native of Mount Joy, Pa., received his preliminary education at the University of Michigan and his M.D. degree at Johns Hopkins University in 1955. He specializes in cardiothoracic surgery.

Continuing Education Coming Events

Feb. 5	**Conference—Office Pediatries** Continuing Education, M.U. School of Medicine Medical Center, Columbia
Feb. 14-15	**Fifth Midwest Conference on the Thyroid** Continuing Education, M.U. School of Medicine Medical Center, Columbia
Mar. 12-13	**Conference—Drug Therapy** Continuing Education, M.U. School of Medicine Medical Center, Columbia
Mar. 21-22	**21st Annual Midwest Cancer Conference** Sponsored by Kansas Division, American Cancer Society Broadview Hotel, Wichita, Kan.
April 2-3	**Conference—Diagnosis and Treatment of Cardiac Arrhythmias** Continuing Education, M.U. School of Medicine Medical Center, Columbia

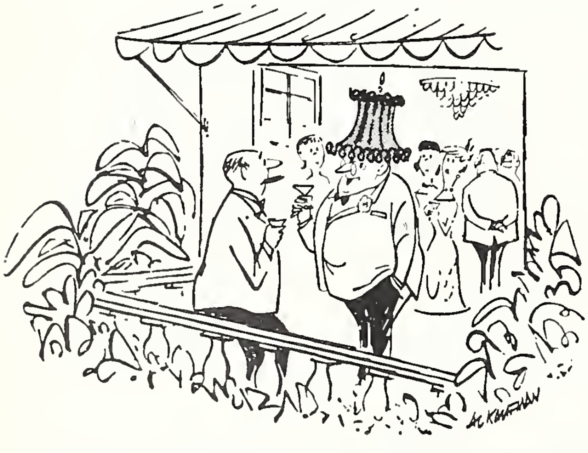
From the Medical Schools

WASHINGTON UNIVERSITY

James L. O'Leary, Ph.D., M.D., professor and head of the Department of Neurology at Washington University School of Medicine, has received the William Lennox Award from the American Epilepsy Society. The award, a $1,000 prize and an engraved certificate, was presented on December 5, 1968 at the annual Society meeting in New York by Robert B. Aird, M.D. Dr. O'Leary was cited for his studies on brain function, for clinical investigation of epileptic patients and for leadership in improved patient care. The award is made in memory of William G. Lennox, M.D., who was a world-renowned scholar of epilepsy at Harvard University Medical School.

The following three members of the School of Medicine faculty have received grants from the National Science Foundation totaling $88,200:

Joseph Eigner, Ph.D., assistant professor of microbiology, is receiving $38,100 to support research entitled "The Role of DNAses in Bacterial and Viral Metabolism."



"I do this at every party as soon as it gets out that I'm a doctor!"

Leonard J. Banaszak, Ph.D., assistant professor of physiology and biophysics and of biological chemistry, has a grant for $35,000 for research of "X-Ray Structural Studies of Cytoplastic Malate Dehydrogenase."

Philip W. Majerus, M.D., assistant professor of biological chemistry and of medicine, will use his $15,000 grant for researching "The Mechanism and Control of Fatty Acid Synthesis."

In addition to offering to the public free chest x-rays and health services financed largely through Christmas Seal campaigns, the Tuberculosis and Health Society of St. Louis awards fellowships to researchers seeking the causes of such respiratory diseases as emphysema.

At Washington University School of Medicine, Harish Kumar Dhingra, M.B.B.S., is investigating emphysema on a Society-supported fellowship. As a result of research already conducted, several theories have been proposed to explain the cause of emphysema, including the destructive effect of cigarette smoke on lung tissue. In addition, statistics show, emphysema tends to occur more frequently in older people.

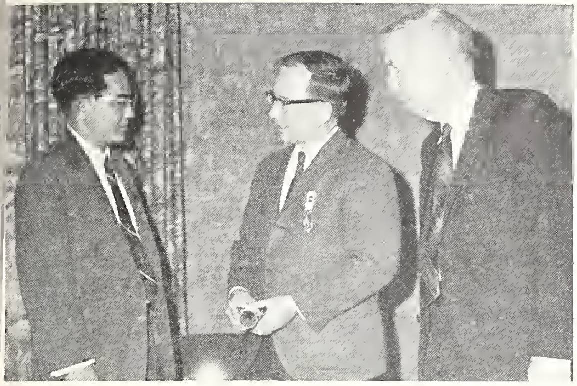
Dr. Dhingra is working with John A. Pierce, M.D., associate professor of internal medicine and director of the pulmonary disease division at the School of Medicine, in looking for the causes and development of destructive pulmonary emphysema.

Twelve senior students at Washington University School of Medicine have been elected to membership in Alpha Omega Alpha, an honorary society recognizing outstanding scholarship and leadership in medicine and related fields.

Students to be initiated include William Berman, Jr. and John L. Trotter, St. Louis; Lawrence J. Dunn, Santa Maria, Calif.; Morey W. Haymond, Greeley, Colo.; Harry T. Hersey, Chatham, N. J.; Robert E. Kraetsch, Peoria, Ill.; Michael T. Levy, Flushing, N. Y.; James O. Lindsey, II, Waxahachie, Tex.; Curtis W. Schupbach, Sedalia, Mo.; William G. Turner, Jr., Worthington, O.; Bruce U. Wintroub, Omaha, Neb.; and W. B. Jerry Younger, Abilene, Tex.

MISSOURI UNIVERSITY

Three new members have been appointed to



Dr. Fred V. Lucas *(center)*, chairman of the Department of Pathology at the University of Missouri-Columbia, was presented a medal and citation from the government of South Vietnam in appreciation of the assistance he has given to the University of Saigon Medical School. Dr. Le Minh Tri *(left)*, Minister of Education, made the presentation on Dec. 11, 1968 when he visited Columbia with Dr. Lawrence Pratt *(right)*, director of the medical education project in Saigon for USAID. The University of Missouri's pathology department is training Vietnamese medical technicians in both this country and in Saigon. Three senior faculty members and five medical technologists have been to Saigon on a rotating basis to aid in teaching and training medical students and technicians.

the staff at the University of Missouri Medical Center.

Ahsen T. Ozarda, M.D., who has been appointed associate professor of radiology, comes to the Medical Center from the University of Texas Medical Branch at Galveston. Chief of the radiotherapy division there for the past three years, Dr. Ozarda also will head that section here. He is a native of Istanbul, Turkey, where he was graduated from the Faculty of Medicine, University of Istanbul, in 1940.

Walker Allen has been appointed assistant director and chief fiscal officer for the Medical Center, replacing Charles Looker, who resigned to accept a similar position at the University of California Medical Center in San Francisco.

A former Missourian, Mr. Allen has been associated with the Fisher Governor Co., Marshalltown, Ia.

He graduated with honors in business education from Northeast Missouri State College in 1939, attended graduate school in business administration at the University of Missouri in 1940 and an advanced management program at Harvard Business School in 1963.

Michael A. West has been named an instructor in graduate studies in health services management and senior assistant director of the University Hospital. He received both Bachelor's and Master's Degrees from the University of Minnesota. Since 1965 he has been assistant director of Rhode Island Hospital in Providence.

Dr. Aree Valyasevi, dean of the school of medicine and chairman of Pediatrics at Ramathibodi Hospital in Bangkok, Thailand, visited the University of Missouri Medical Center in December to review the curriculum of the School of Medicine. The Ramathibodi Hospital and Medical School is scheduled to open June, 1969, in Bangkok. While at the Medical Center, Dr. Valayasevi gave a talk on "Bladderstones in Children" during pediatrics grand rounds.

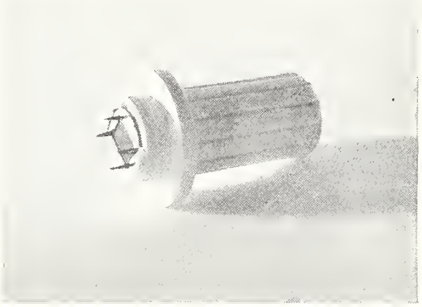
In recent weeks, the pediatrics department has had several visiting professors including Dr. Oystein Aagenas, professor of pediatrics at the University of Oslo, Norway, and Dr. Lars Soderhjelm, professor of pediatrics and director of the Children's Hospital in Sundsvall, Sweden. Both men presented talks while at the Medical Center.

ST. LOUIS UNIVERSITY

A new device to wind coils for artificial kidney machines that could reduce the cost of caring for chronic kidney disease patients by more than 50% annually has been developed by a

**To fight TB-
find it first!**

Make tuberculin testing routine
with every physical examination.



TUBERCULIN, TINE TEST
(Rosenthal)

Side effects are possible but rare: vesiculation, ulceration, or necrosis at test site. Contraindications: none, but use with caution in active tuberculosis. Available in 5's and 25's.

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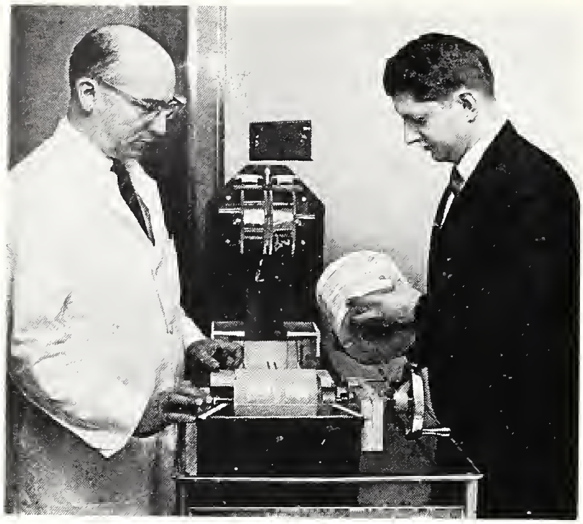

Dr. John J. Garrett *(left)* and Mr. Edward A. Koertge *(right)*, members of the faculty of the St. Louis University School of Medicine, demonstrate the device they have developed to wind coils for artificial kidney machines. The coils are assembled in a simple mechanical operation from cellophane tubing, plastic screening and plastic accessories.

St. Louis University physician and a University bioengineer.

In tests of 20 prototype coils that have been carried on for more than a year, the clinical performance of the "home-made" coils has equalled that of commercially available dialyzers, according to the coil's co-developers, Dr. John J. Garrett, Associate Professor of Internal Medicine and Director of the Section of Renal Diseases at St. Louis University School of Medicine, and Mr. Edward A. Koertge, Lecturer in Biomedical Engineering in Internal Medicine at the University and Bioengineering Consultant to the Hemodialysis Center at John Cochran Veterans Administration Hospital. The designers believe that the new device can extend long-term hemodialysis facilities to additional patients with advanced renal failure.

The Cochran Hemodialysis Center is the only long-term dialysis facility in the St. Louis metropolitan area. It is staffed and operated by the St. Louis University School of Medicine as a joint project with the Veterans Administration. Recently, it was expanded and remodeled.

Postgraduate psychiatric courses for physicians are being offered by the School of Medicine's Department of Neurology and Psychiatry during Spring of 1969. Course titles and dates of presentation are Special Interviewing Techniques I, January 7 through February 25; Special Interviewing Techniques II, March 11 through April 29; Psychotherapy Supervision, January 31 through May 30. Dr. Arnold Block is course director. The series, open to nonpsychiatric physicians, is assisted by an NIH grant. It is sponsored by Metropolitan College.

Dr. C. Rollins Hanlon, professor and chairman of the department of surgery, has been elected the 32nd president of the Society of Clinical Surgery. His term of office will run until 1970. The Society, limited to 50 active members, was founded in 1903 by Drs. Harvey Cushing, Will Mayo, Rudolph Matas and other distinguished surgeons.

Dr. William B. Schwartz, professor of medicine, Tufts University School of Medicine, will deliver the 24th Hanau W. Loeb lecture sponsored by the Alpha Pi Chapter of Phi Delta Epsilon Medical Fraternity and the Department of Biochemistry. Dr. Schwartz will speak on "Respiratory Disorders and the Defense of pH." Dr. Loeb was dean of the School of Medicine from 1914 to 1927.

Dr. Anwar Shah, assistant clinical professor of ophthalmology, was the guest speaker at the St. Louis Ophthalmological Society on October 24. His subject was "The Role of Cryotherapy in Retinal Surgery."

Dr. Sidney A. Thayer, professor of biochemistry, died at the St. Louis University Hospitals on Jan. 6, 1969. Dr. Thayer worked closely with Dr. Edward A. Doisy, 1943 Nobel Prize winner, in research leading to the isolation of estrone, the first female hormone. He also was associated with Dr. Doisy in work on the isolation of Vitamin K. Dr. Thayer, 66, had been under medical care for heart disease, but was active in teaching and research at the School of Medicine.

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Careful fitting our specialty

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A total daily dosage of 3 or 4 tablets will normally provide the continuous relief your patient expects. Use with caution in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result.

Pitman-Moore Division of
The Dow Chemical Company,
Indianapolis, Indiana.

Novahistine® Singlet decongestant-analgesic

(Each tablet contains: phenylephrine hydrochloride, 40 mg.; chlorpheniramine maleate, 8 mg.; acetaminophen, 500 mg.)

DOW

The Council Reports

(Continued from page 78)

pleased with the way the program is running. It was reported that the Division of Welfare was anticipating new proposed programs which would demand more money and discussion followed regarding where this money would be obtained. It was reported that for the fiscal year beginning July 1, 1968 to June 30, 1969, the state has appropriated $15,769,000 and the Federal Government has appropriated $25,520,000, making a total of $41,289,000. Mr. Carter reported that the program, as it now functions, is in good financial condition.

It was reported that a small number of physicians, who had to be contacted continually for further information, were causing some problems (frequently the same ones). The feeling of the Committee was that the Medicaid program was operating in a satisfactory manner in comparison with many other states. It was stated that Missouri has taken this slowly, only covering welfare patients and it is not anticipated that the medically indigent would be included in this program in the near future. It was noted that the present federal law requires that the program include the medically indigent by 1975.

It was suggested that the MSMA discipline its own members who are causing continuing problems in the Medicaid program. However, in some instances, the physician in question may not be a member of the State Association.

On motion of Dr. Kerr, duly seconded, the Report of the Medical Economics Contract Committee was approved.

Dr. Miller reported that our first Medical Society Officer's Conference was held in 1967 and was a very successful meeting. It was decided then to hold such a conference annually. The 1969 Officer's Conference is scheduled for January 11-12 at the Ramada Inn, Jefferson City. Dr. Miller noted that the program would be similar to the last one. He stated that the program would be effective only if there is full participation and he urged the Councilors to make every effort to see that persons in their district are encouraged to attend this meeting. Officers of the County Medical Societies in all the districts should be encouraged to attend, as well as Public Relations and Legislative chairmen who are receiving special invitations. It also was stated that the meeting is open to the entire membership.

On motion of Dr. Kerr, duly seconded, the program was approved with special commendation to Bob Carroll for the program layout.

Dr. Peterson reported that the AMA Session was a working meeting and that everyone was kept busy attending the various reference committee meetings. He stated that the Constitution and By-Laws of the AMA were changed to take care of membership discrimination charges. In this respect, charges filed with the Judicial Council of the AMA against a state medical society may lead the Council to admonish such state society or, in the case of repeated situations, request the AMA House of Delegates to remove that state from the AMA Federation.

Dr. Peterson stated that the need for all to observe the guidelines and Opinions and Reports of the Judicial Council was well presented and emphasized.

He discussed briefly the reorganization of the Council on Medical Service, particularly the combining of committees to streamline the Council. Dr. Peterson called attention to a report to the House regarding the OEO Program and suggested that we should be sure we are in control of the medical situation in our areas. He also called attention to the Headstart Program and stated that the American Academy of Pediatrics was involved in this project and would help to improve it.

He presented additional positions taken by the House of Delegates as follows: *Rights of Individuals*—Physicians should continue, as they have in the past, to provide medical services for all according to their resources. *Problems with Insurance Programs*—Blue Shield, as well as others, should identify the meaning of any so-called "paid in full" coverage. *Definition of UCR fees* were spelled out and it was recommended that when these terms are used in a contract, they should be specifically defined.

The AMA House of Delegates approved a *Uniform Anatomical Gift Act* and urged state medical associations to seek its adoption in their states. Dr. Peterson mentioned a resolution relating to the study by AMA of health care costs. In this respect, the House asked the Board of Trustees to devote sufficient staff, facilities and funds to develop an "effective program for immediate and on-going studies of Health Care Costs."

AMA Position on Osteopathy—The House adopted a Board report stating the following objectives with respect to osteopaths. The AMA seeks to "1. Assure the provision of the best possible health care to the American people; 2. Make available to students and graduates in osteopathy, education of the same high standards as prevail in undergraduate, graduate and continuing educational programs in medicine; 3. Provide avenues whereby qualified osteopaths may be assimilated into the mainstream of medicine."

"To achieve those objectives, the AMA: 1. Recommends that each school of osteopathy improve its teaching program by strengthening its faculty and improving its facilities and resources; 2. Invites schools of osteopathy and their accrediting agencies to consult with the AMA and the Association of American Medical Colleges; 3. That accredited hospitals may accept qualified osteopaths on medical staffs; 4. Suggests that medical specialty boards may accept osteopaths for examination for certification who have completed AMA-approved internships and residency programs and have met other regular requirements; 5. Requests that as specialty boards declare their intent to permit examination of osteopathic graduates, appropriate AMA-approved residency programs be opened to qualified osteopathic graduates; 6. Suggests that AMA-approved internships may be opened to qualified osteopathic graduates; 7. Recommends that determination of qualification be made at the level of the medical staff, the county medical society or the review committees and boards having appropriate jurisdiction; and 8. Suggests that AMA, state and county societies and other affected organizations 'may proceed to make such constitution and bylaw changes as are necessary to implement the foregoing.' "

The AMA House also "suggests that each county and state medical society may accept qualified osteopaths as active members and thereby provide for their membership in the American Medical Association" and instructed the Council on Constitution and Bylaws to prepare "appropriate Bylaw amendments so that qualified Doctors of Osteopathy may be admitted to full active membership" in the AMA.

Paramedical Personnel—It was recommended that physicians maintain awareness of the need to restrict the practice of medicine to the medical profession which entails knowledge of contracts with hospitals and their personnel. *Nursing schools*—In regard to nurses, the House resolved that "state and county medical societies be encouraged to study the problems relating to nurse education and to seek at the local level all available sources of financing support for hospital nursing schools" and that the AMA "take appropriate action in consultation with professional nurses' associations and the American Hospital Association to encourage increasing enrollment in diploma schools."

The Missouri resolution regarding minors' consent to treatment for venereal disease and other communicable diseases without parental consent was approved with slight change.

Dr. Neilson reviewed some of Dr. Peterson's remarks and also presented some additional information. He stated that the Missouri Delegation should be complimented upon the work they have done.

On motion of Dr. Wray, duly seconded, the report of the AMA delegates was accepted with commendation.

Dr. Crowe presented the report of the joint committee meeting of the Disaster Medical Care and National Defense Committee and the Trauma Committee which met on Sept. 29, 1968 in Jefferson City and of the subsequent meeting on November 13. Dr. Crowe stated that the Committees discussed the Drunken Driver Law and stated that the present law should be revised from 0.15% blood alcohol to 0.10% blood alcohol as required by the 1966 National Highway Safety Act. He requested the Council to support such legislation and also to support a change in the present law which now reads "milligrams of alcohol per 100 *milligrams*" to read "milligrams of alcohol per 100 *milliliters*."

The Committees recommended that the Council and State Association lend their influence, effort and, if necessary, witnesses to support legislation which will help make the Missouri law comply with the 1966 National Highway Safety Act, specifically that portion applying to ambulance personnel, equipment and operation. The Committee also suggests that certain materials be sent to the membership requesting their support at the local level by contact with legislators emphasizing concern for safety on Missouri highways.

It was pointed out that a Good Samaritan bill which would protect against civil suit "any person rendering aid to the injured, excluding gross negligence, at the scene of a highway accident" probably will be introduced in the coming legislative session and Council support for such legislation was requested.

The joint committees also discussed the lack of communication between emergency vehicles and bases of operations, as well as hospitals, and recommended that the Council approve and provide aid where possible in the formation and implementation of emergency medical services and, in particular, emergency ambulance services in outstate Missouri.

It was noted that the University of Missouri School of Medicine at Columbia is providing ambulance personnel training programs. It also is providing training for Emergency Medical Technicians in an outstate Missouri program as well as community technician training which, with the approval of prospective county medical societies, will provide training for morticians, ambulance operators, firemen or policemen at the local level. It was reported that the joint committees were working with the University of Missouri and the Extension Service to provide a one-day program on emergency medical care to be scheduled in April or May, 1969, the theme of which shall be "Community Action for Emergency Medical Services."

A Sub-Committee headed by Dr. Carroll Hungate has outlined a proposed program on emergency medical care, which was proposed for the MSMA Annual Session in 1970 and which will provide one-half day of information on emergency medical services. In order to provide the mentioned program in 1969, certain funds were requested to provide for a budget allowing for the above program, plus travel expenses for out-of-state and local speakers and a modest honorarium. The sum of $800 was requested to help finance this project.

It was suggested by the two committees that, since there is a great deal of overlapping in their endeavors to act upon similar problems, these two committees be dissolved and there be formed a Committee on Emergency Medical Services in their place.

After discussion, on motion of Dr. Stricker, duly seconded, the Report of the Joint Committees on Disaster Medical Care and National Defense and Trauma was accepted with commendation.

Dr. Neilson presented the report of the meeting of the Committee on Control of Venereal Disease which was held on Oct. 2, 1968 in Jefferson City. He reported a brief history on the planning of an educational course to control venereal disease by way of inclusion in the public school curriculum. Mr. Taylor of the Department of Education described the current *Missouri Guide for Health Education for Grades 9 through 12*, which is now out of print. However, he stated a Supplement is being prepared on *Common Communicable Diseases* for use by instructors teaching health education. This is primarily for the junior high school level, but will be offered to elementary level as needed and suitable, also. Mr. Taylor also reported that three basic programs under consideration by the Missouri Department of Education are (1) Communicable Diseases, (2) Sex and Family Life and (3) Smoking and Narcotics.

The Committee also considered changes in the present Missouri law to permit minors to be treated for venereal diseases without parental consent. It was noted that 15 states to date have such a law. A poll of the Committee resulted in the majority being in favor of such a law.

Dr. Neilson introduced a resolution to this effect with approval of the MSMA Council at the Interim Session of the AMA in December which was passed with some changes by the AMA House of Delegates giving AMA support to states considering such a law.

After discussion, on motion of Dr. Kerr, duly seconded, the report of the Committee on Control of Venereal Diseases was accepted with commendation and it was agreed that Dr. Neilson's resolution be referred to the Legislative Committee for implementation and that such a bill be introduced in the next session of the Legislature.

Dr. McCraw reported that, at the Council meeting in Springfield, the Missouri State Medical Association agreed to approve the proposal presented by Dr. Koon regarding the early detection of cervical cancer in the office of the family practitioner to be funded by the Missouri Regional Medical Program and to be sponsored by the Department of Community Health and Medical Practice of Missouri University. He reported that an application had been made to MRMP by the Missouri Academy of General Practice and asked Council approval for the change in sponsorship.

On motion of Dr. Miller, the Council approved the change in sponsorship.

Mr. O'Brien reported that there is a definite move to place Blue Cross and Blue Shield under the supervision

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of the Insurance Department of the State of Missouri and that possible legislation may be introduced to this effect. He requested the opinion of the Council in this regard. After considerable discussion, Dr. Miller suggested that information on this matter be sent to the Legislative Committee for consideration so that proper steps may be taken relative to this problem.

The Council met in Executive Session on Sunday morning to discuss further a few more budget items for 1969. The following members were appointed to the Finance Committee: Drs. Max S. Franklin, St. Louis, Chairman; Doyle C. McCraw, Bolivar; and Gerald L. Miller, Kansas City.

Dr. Kerr called attention to a request from a St. Louis hospital to publish an ad in Missouri Medicine seeking physicians for emergency room service on a salaried basis. After discussion, on motion of Dr. Kerr, duly seconded, it was agreed to accept this particular ad for publication in Missouri Medicine, since the hospital staff had been aware of it and had approved it.

On motion of Dr. Wray, duly seconded, it was agreed that, in the future, written permission should be obtained by the Editor of the Missouri State Medical Association Journal from a hospital staff before any similar ads be accepted.

After further discussion regarding the problem of emergency care and emergency rooms in hospitals and the difficulty in staffing, it was agreed, on motion of Dr. Cope, duly seconded, that the entire matter of emergency room care in hospitals, in view of the changing pattern in medical practice, be referred to the Committee on Medical Education and Hospitals for study and recommendations.

Dr. Powell presented a resolution regarding Establishing a New Level of Medical Practitioner to the Council for approval, copies of which were distributed. The resolution follows:

> Whereas, There is a grave awareness in medical circles for physicians' services and their increased effectiveness has raised the longevity and well being to the level causing more people to need their services, and
> Whereas, There is an ever-growing public concern and discussion on the subject; and
> Whereas, The Federal Government can provide us no more qualified physicians than there are physicians available, but they will provide some form of health care, therefore be it
> *Resolved*, That MSMA endeavor to establish a new level of medical practitioner, licensed under the Board of Healing Arts, in accordance with the laws of the State of Missouri, and be it further
> *Resolved*, That utilizing our existing facilities a training program be created to establish the degree and title of practitioner of medicine, and be it further
> *Resolved*, That this medical practitioner serve only under the direct supervision of a licensed physician and the State Board of Healing Arts of Missouri, and be it further
> *Resolved*, That the MSMA Council appoint an Ad Hoc Committee to study the above resolution.

The resolution was discussed by several of the Councilors and it was brought out that this proposition should be studied carefully because of far-reaching possibilities, such as licensure problems. Dr. McCraw stated that he was in favor of experimenting with the proposal, that there was a great deal of thought about shortening the overall medical education program and that the medical profession should be open-minded about this idea and really study it.

Dr. Kerr questioned whether or not this should be presented to the House of Delegates for study rather than the Council taking on this responsibility. Dr. Fisher pointed out that the Council could appoint an Ad Hoc Committee to study this problem. If, after study, it then merits being brought to the House of Delegates, such can be done.

The resolution presented by Dr. Powell was approved on motion of Dr. Cope, duly seconded.

Dr. Cope again brought up the situation regarding Form SB-811, which is still being sent by St. Louis Blue Cross requesting information which is considered privileged information. Copies of a letter which was approved by the Council at its meeting in September, 1968 and forwarded to St. Louis Blue Cross, and the reply received from St. Louis Blue Cross were distributed for information. It was decided that another letter be formulated to send to St. Louis Blue Cross. Dr. Cope, with the assistance of legal counsel, composed the letter to be sent. On motion of Dr. Miller, duly seconded, the letter to be sent was approved.

Mr. Fox presented a brief report of the minutes of the meeting of the Committee on Rural Medical Service for Dr. Worley, the Chairman, who could not be present. He stated that the Committee met on May 16, 1969 and reviewed the action taken by the 1967 Rural Medical Service Committee regarding first aid training programs to be offered at the local county society level. A first aid training program was approved in principle by the Council and adopted by the 1968 House of Delegates. He reported that the program, which includes first aid training, is presently being offered in various schools throughout the state of Missouri. The material includes teaching aids, films, visual aids, etc. The course requires a minimum of from 11 to 12 classroom hours.

Dr. Frank Mitchell of the Department of Surgery, University of Missouri, reported on a recent grant made available to the Medical Center for training ambulance personnel and study of emergency services. Mr. Fox reported that there was a proposed bill being considered for introduction in the next General Assembly regarding the requirements for emergency ambulance equipment. He stated that a number of sources who have been providing this service would not be able to continue because of the difficulty of meeting these requirements.

Dr. Mayer reported that the University of Missouri has developed a program for providing training and assistance to the best of their ability in regard to emergency ambulance services for any group in rural Missouri.

The Committee recommended for Council approval that the MSMA membership encourage and support this Emergency Medical Service Training program at the local county society level and, where feasible, assist in the implementation of this program.

After further discussion, on motion of Dr. Miller, duly seconded, the report of the Rural Medical Service Committee was approved and referred to the Legislative Committee and it was decided that the Executive Office watch this proposed legislation carefully.

Dr. Fisher expressed to Mr. Lemoine Skinner regret that the Council had decided not to continue to retain Mr. Skinner as Public Relations Consultant and thanked him for his many services during the past years. The Council expressed the hope that Mr. Skinner, because of his vast knowledge of medical matters, would be willing to help the Association in matters of importance when called upon on a "fee for service basis." Mr. Skinner agreed that he would be happy to be of service when needed.

Discussion followed regarding the possibility of some sort of indoctrination of new members, or new physicians locating in Missouri. It was suggested that a Code of Ethics or Guidelines should be prepared to be sent to new members to stimulate interest in the local societies and MSMA. It was suggested that such material could be studied by the Public Service Committee. On motion of Dr. Wray, duly seconded, it was agreed that a Code of Ethics or Guidelines be developed or secured by the Public Service Committee for distribution to young physicians or new physicians locating in Missouri and that

Bi-State RMP Receives Grant

The Bi-State Regional Medical Program in St. Louis has received a $645,200 supplemental grant from the Division of Regional Medical Programs, U. S. Department of Health, Welfare and Education, extending the program to November 1969.

Dr. William Stoneman III, planning director, said the grant will be used in a continuing effort to identify bi-state health needs and resources pertaining to heart, cancer, stroke and related diseases and to develop cooperative programs throughout the region to fill the needs. The bi-state region encompasses eastern Missouri and southern Illinois.

Under the first planning grant, awarded in April, 1967 and extended to November, 1968, surveys were completed leading to the six projects recently approved by the regional advisory committee and now in Washington for possible funding. Nearly 50 medical and health agencies in Illinois and Missouri will participate in the projects.

The St. Louis area participants include 12 hospitals. Among communities outside the St. Louis area with participating agencies are Cape Girardeau, Springfield and Columbia in Missouri, and East St. Louis, Alton, Springfield, Decatur, Herrin, Peoria, Breese and Centralia in Illinois.

Many additional communities in the region will be represented in the projects through individual participation of their physicians and nurses in the continuing education programs which are included in several of the projects.

The proposed projects, with a total estimated first-year cost of about $945,000, are a nurses' training unit in acute stroke care, a stroke diagnostic unit to provide treatment for patients and continuing education for physicians, technicians and nurses, a program of continuing education in long-term nursing care, a regional radiation therapy program designed to make such treatment available to more cancer patients, a cancer chemotherapy program in which doctors of many specialties will concentrate on the latest methods for using new anti-cancer drugs, and a rehabilitation study to speed recovery from heart attack through a carefully supervised and gradually increased physical work program.

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such be presented to the Council with recommendations for Council review and approval.

Dr. Yore presented an up-to-date resume of the 1969 Annual Session program and stated that a preliminary program would be published in the January, 1969 issue of MISSOURI MEDICINE. He noted that those responsible for the various portions of the program had done an excellent job and, even though not all of the speakers have been fully confirmed, the program is practically complete.

He also stated he hoped that the Council would consider the possibility of holding the next annual session to be held in St. Louis at the River Front Inn, which has new facilities and great possibilities.

Dr. Gunn moved that Dr. Yore's report be accepted. The motion was duly seconded and carried.

Mr. Fox presented the minutes of the meeting of the Committee on Utilization Review in the absence of Dr. Blaine Hibbard, the Chairman. Mr. Fox stated that the meeting was called to study problems and developments to date relating to Utilization Review Committees in hospitals throughout Missouri. The report noted that it is difficult to identify the responsible physician when the patient is transferred to another service or is not transferred, but a different service performs the greater part of medical or surgical care. It was suggested that hospitals across the state be surveyed regarding utilization reviews, using the outline which was distributed to the Council.

Discussion followed regarding the various items included in the report. On motion of Dr. Miller, duly seconded, the minutes of the meeting of the Utilization Review Committee were approved, including implementation of the mailing of the questionnaire to the various hospitals over the state.

Mr. McIntyre presented a brief report of the Committee on Medical Education and Hospitals in the absence of Dr. Ralph Hall who was unable to attend. In the discussion that followed, there was some controversy over some of the statements in the report, and it was decided, on motion of Dr. Cope, duly seconded, that the report be tabled until Dr. Hall could present the report at the next Council meeting in February.

Dr. William C. Allen stated that the Missouri Regional Medical Program presented a one-day program for the MRMP Advisory Council as well as for the Medical Advisory Council of the University of Missouri and stated that the MRMP would be happy to set up such a program for the Council of MSMA, if so desired. He stated that it could be a one-half day or a one-day program and would describe how these programs relate over the state, giving a presentation and discussion of them. He stated that 26 projects are in operation in the state. Dr. Yore stated that MRMP and the Bi-State Regional Medical Program are cooperating to put on a part of the MSMA Annual Session program.

The Councilors reported on various items of interest in their particular districts. Dr. Cope suggested that the Council set aside an earlier time on the agenda for Councilors to introduce and discuss important items which they feel merit the Council's attention.

On motion of Dr. Wray, duly seconded, it was agreed that the Executive Office purchase a tape recorder for use at Council meetings. Motion carried.

It originally was reported that the next Council meeting would be held on Feb. 8-9, 1969 at the Ramada Inn in Jefferson City. However, since the Council meeting, these dates have been changed to Feb. 1-2, 1969 at the Ramada Inn in Jefferson City.

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TWO INTERNISTS—Board eligible or certified, wanted by multi-specialty group in Central Texas associated with 100-bed hospital. $20,000-$24,000 annual salary; early partnership; no investment. Write G. H. Wahle, Jr., M.D., King's Daughters Clinic, Temple, Texas, or call collect, AC 817 778-5501.

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WANTED—Physician with Missouri license to join group of private physicians for a full-time hospital emergency room duty. Guaranteed salary plus professional fees. Call Administration, Alexian Brothers Hospital, AC 314 TO 5-3333 or write 3933 S. Broadway, St. Louis, Mo. 63118.

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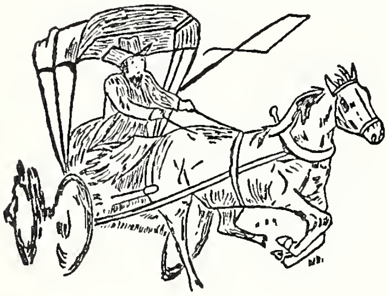

FORTY YEARS AGO

The rapid growth and development of medical teaching and investigation at Washington University Medical School must come as a surprise and a revelation. It started in 1891, when the University took over the faculty and inherited the splendid traditions of the 50-year-old St. Louis Medical College. Eight years later, it amalgamated with the long-established Missouri Medical College. While Washington University has always been a leader, the period of its greatest accomplishment has been less than 18 years. In 1910, the school was completely reorganized. Barnes Hospital was fused with the University which moved its school and dispensary from the old downtown location to the present site. The St. Louis Children's Hospital soon joined the group and the Isolation Hospital was built by the University. Still more recently, the St. Louis Maternity Hospital has become associated. The generous gift of the late Mr. Edward Mallinckrodt has made possible the development of a Radiological Institute.

Another wave of influenza has swept across the country and found us no better informed regarding its specific causes than in 1918, but with a little more widespread understanding of general therapeutic measures and more efficiently organized forces to combat it or any other epidemic. Physicians and researchers everywhere are plugging away at influenza. Man's epidemic enemies have fallen before them one by one.

TWENTY-FIVE YEARS AGO

In the years, 1938 to 1941, there were 488 cases of smallpox in Missouri each year. If Missouri had been a state with adequate laws and had experienced the average annual rate of 0.8, there would have been 30 cases. Of the 48 states, there are 33 with a better record.

Lt. Col. D. G. Hall, representing the Surgeon General of the Army and speaking before members of the St. Louis Medical Society on January 11, said that the Army needs 3,000 more physicians exclusive of interns and residents. He added that if these physicians are secured within the next three months, it is probable that the further need of the Army for medical officers will be satisfied by current medical school graduates.

Hail, penicillin! A preserver of life is far better than a destroyer of life. And to think that it all came from the casual observation of some Petri dishes which became contaminated with one of those pesky molds. Fate always smiles upon those who have their eyes open and who have an open circuit on the association pathways from the visual cortex to the frontal lobe.

TEN YEARS AGO

Cinchona Bark, which has been known to man for centuries for its medicinal properties, was found in 1847 to contain the natural alkaloid, quinidine. Quinidine is the dextrorotatory isomer of quinine, another natural alkaloid of the cinchona group. In 1914, Wenchebach reported the value of quinine in certain cardiac arrhythmias after the chance observation of cessation of atrial fibrillation in one of his patients following the use of quinine. In 1918, Von Frey noted that quinidine was more effective in conversion of atrial fibrillation than either quinine or chinchonine. By 1922, quinidine has been used many times for the treatment of atrial fibrillation and a conversion rate of 50% was recorded at that time.

Governor Blair recommended passage of the joint licensure measure backed by the physicians and osteopaths in his opening address. This bill calls for a single board composed of five M.D.s and two D.O.s. It has been approved by the MSMA and the Missouri Osteopathic Association.

E. J. Senn, M.D., Herculaneum, was honored by a surprise reception which was sponsored by a large number of his patients and associates. Eight hundred persons were present for the affair.

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Missouri Medicine

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Preliminary Program
111th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

Chase-Park Plaza Hotel, St. Louis **March 20-23, 1969**

Thursday, March 20

11:00 AM Registration of Delegates.
1:30 PM House of Delegates Meeting, opening session.
4:30 PM Reference Committee Meetings.

Friday, March 21

8:00 AM Registration.

9:00 AM *New Hope for the Failing Heart.* (Sponsored by the Missouri Heart Association.)
Moderator: Albert M. Estes, M.D., Cape Girardeau.
Panel Participants:

1. *The Surgical Approach,* Denton A. Cooley, M.D., Houston, Texas.
2. *The Medical Approach,* Robert D. Leachman, M.D., Houston, Texas.

9:00 AM *Medical Economics, Private and Government Programs* (Sponsored by the MSMA Committee on Medical Economics.)
Moderator: Rae W. Froelich, M.D., Lebanon

1. *Medicaid Program in Missouri,* Mr. Proctor N. Carter, Director, Division of Welfare, Jefferson City.
2. *The Responsibilities of Physicians as Medical Staff Members,* Otto Arndal, M.D., Assistant Director, Hospital Accreditation Program, Chicago.

10:30 AM Intermission to view exhibits.

11:00 AM Continuation of Medical Economics Program.

3. *Liability of Physicians in Completion of Staff Duties,* Norris H. Allen, Attorney, St. Louis.
4. *Corporate Practice Today and Tomorrow,* William A. Boles, Attorney, St. Louis.
5. *Current Tax Developments of Special Interest to Medical Practitioners,* Joseph R. McKenzie, Internal Revenue Agent, St. Louis.

11:00 AM *Management of Endometriosis,* George H. Gardner, M.D., Chicago. (Sponsored by the MSMA Committee on Maternal Welfare.)

11:00 AM *Inhalation Therapy for the Community Hospital* (Sponsored by the Missouri Society of Anesthesiologists)
Moderator: Harold J. Freihcit, M.D., St. Louis.
Panel Participants:

- Paul R. Dumke, M.D., Director, Department of Anesthesia and Inhalation Therapy, Henry Ford Hospital, Detroit.
- John F. Schweiss, M.D., Director, Section on Anesthesiology, St. Louis University School of Medicine.
- Marshall T. Metzgar, M.D., Assistant Professor, Department of Anesthesia, University of Missouri School of Medicine, Columbia.
- Mr. James Whitacre, Technical Director of the School of Inhalation Therapy, University of Missouri School of Medicine, Columbia.

12:00 NOON Fifty-Year Club Luncheon
Committee on Maternal Welfare Luncheon
Business Meeting of Missouri Obstetrical and Gynecological Society to follow.
General Luncheon: Guest Speaker, Robert L. Burnes, Executive Sports Editor, *St. Louis Globe-Democrat.*
University of Missouri Alumni Luncheon.

2:00 PM *General Surgery Session* (Sponsored by the Missouri State Surgical Society.)
Moderator: Cyril J. Costello, M.D., St. Louis.
Panel Participants:

- *Management of the Patient With Cancer,* Thomas F. Nealon, Jr., M.D., New York, N. Y.
- Discussant: John S. Spratt, Jr., M.D., Columbia.

2:00 PM *Sex Education of the Pediatric Age Group* (Sponsored by the Missouri Chapter, American Academy of Pediatrics).
Moderator: George D. Comerci, M.D., Assistant Professor of Pediatrics, Cardinal Glennon Memorial Hospital, St. Louis.
Panel Participants:

- Anthony Labrum, M.D., Associate Professor of Gynecology, St. Louis University School of Medicine, St. Louis.

Robert J. Corday, M.D., Child Psychiatrist, Cardinal Glennon Memorial Hospital, St. Louis.

Evalyn Gendel, M.D., Department of Mental and Child Health, Kansas State Health Dept., Topeka, Kansas.

2:00 PM *Urinary Tract Infection in Childhood—From Origin to Correction,* Richards P. Lyon, M.D., Berkeley, California. (Sponsored by the Missouri Federation of Urologists.)

3:30 PM Intermission to view exhibits.

4:00 PM House of Delegates, second session.

5:30 PM Missouri State Medical Foundation Annual Meeting.

6:00 PM Reference Committees.

Saturday, March 22

8:00 AM Registration.

9:00 AM *What's New in Otolaryngology* (Sponsored by the Department of Otolaryngology, Washington University School of Medicine.)

Moderator: Joseph H. Ogura, M.D., St. Louis.

1. *Medical and Surgical Treatment of the Deaf and Dizzy Patient,* Malcolm Stroud, M.D., St. Louis, Associate Professor and Lindsay Pratt, M.D., St. Louis, Assistant Professor.
2. *Head and Neck Trauma and Endoscopy,* Hugh Biller, M.D., St. Louis, Assistant Professor.
3. *Head and Neck Surgery,* Joseph H. Ogura, M.D., St. Louis, Lindburg Professor.

9:00 AM Medical Symposium (Sponsored by the Department of Internal Medicine, St. Louis University School of Medicine.)

Moderator: Thomas F. Frawley, M.D., St. Louis.

1. *Newer Techniques in Diagnosis Using Radioisotopes,* Robert M. Donati, M.D., St. Louis.
2. *Current Management of Patients With Chronic Renal Failure: Conservative Programs, Dialysis, Transplantation,* John J. Garrett, M.D., St. Louis.
3. *New Concepts in Hypertension,* James B. Lee, M.D., St. Louis.
4. *Allergy Emergencies,* Raymond G. Slavin, M.D., St. Louis.
5. *Value and Dangers of Submaximal and Maximal Stress in the Detection of Coronary Artery Disease,* Edwin E. Westura, M.D., St. Louis.

9:00 AM *The Changing Role of Pathology in Medical Practice* (Sponsored by the Department of Pathology, University of Missouri School of Medicine, Columbia.)

Moderator: Vincent P. Perna, M.D., St. Louis.

1. *The Concept of a Modern Academic Department. Teaching: Undergraduate, Graduate and Continuing Education,* D. A. Senhauser, M.D., Columbia.
2. *Service: Computerized Laboratory Data System—Its Clinical Potential,* James T. Packer, M.D., Columbia.
3. *Research: Multiphasic Screening, Does It Have a Place in General Medicine Practice?,* H. J. Van Peenan, M.D., Columbia.

10:30 AM Intermission to view exhibits.

11:00 AM *The Medical Report—Use and Abuse* (Sponsored jointly by the MSMA Committee on Industrial Health and Medical-Legal Committee.)

Moderator: Mr. Rexford H. Caruthers, Attorney, St. Louis.

1. *Cardiac Problems Related to Medical-Legal Affairs,* Maxwell G. Berry, M.D., Kansas City.
2. *Medical Reporting From a Neurosurgical Standpoint,* Keith Whittaker, M.D., Kansas City.
3. *Orthopedic Problems of Medical-Legal Importance,* Lee T. Ford, M.D., St. Louis.

(Additional speakers to be announced.)

11:00 AM *Innovations in Medical Care—What's RMP To You?* (Sponsored by Missouri Regional Medical Program and Bi-State Regional Medical Program)

Co-Moderators—Arthur E. Rikli, M.D., Columbia, MRMP and William Stoneman, III, M.D., St. Louis, Bi-State RMP.

1. *Introduction and Summation,* Glenn O. Turner, M.D., Springfield.
2. *How to Get More Medical Mileage Out of Yourself.*
   MRMP—
   The Telelecture, Mr. Gail Bank, Columbia.
   The Automated EKG, Cecil Auner, M.D., Springfield.
   The Audio Message Center, Donald A. B. Lindberg, M.D., Columbia.
   Expanded Consider, John Rourke, M.D., Columbia.

Bi-State RMP—
Work, Stress and Coronary Rehabilitation, Edwin Westura, M.D., St. Louis.
More Manpower to Lessen Your Load, Mr. Harry Davis, St. Louis.
Library Service for the Practicing Physician, Miss Allene K. Schneider, St. Louis.
Radiation Therapy Support for Your Hospital, William E. Powers, St. Louis.

11:00 AM *Drug Abuse and Drug Addiction* (Sponsored by the Missouri Academy of Psychiatry.)
Moderator: George J. Lytton, M.D., Kansas City.
1. *Drug Abuse as a Public Health Problem,* Ronald J. Catanzaro, M.D., Columbia.
2. *Drug Abuse in Private Medical Practice,* Edmund V. Cowdry, Jr., M.D., St. Louis.
3. *The Drug Scene,* Donald B. Louria, M.D., New York, N. Y.

12:30 PM General Luncheon: Guest Speaker, Durward C. Hall, M.D., U. S. Representative, Washington, D. C.

2:30 PM *Glaucoma as a Problem in General Medicine.* (Sponsored by the Missouri Ophthalmological Society, Inc.)
Moderator: John A. Buesseler, M.D., Columbia.
Glaucoma Screening—Advantages and Limitations, Monsour F. Armaly, M.D., Iowa City, Iowa.
Introduction to the Problem, William M. Hart, M.D., Ph.D., Columbia.
Glaucoma Research Trends, Allan E. Kolker, M.D., St. Louis.
Modern Surgical Alternatives in Glaucoma Treatment, Albert N. Lemoine, Jr., M.D., Kansas City, Kansas.
Current Medical Therapies for Glaucoma, Robert Dean Mattis, M.D., St. Louis.

2:30 PM *Symposium on Malignancies Excluding the Lymphomas.* (Sponsored by the Missouri Society of Internal Medicine.)
Moderator: William A. Knight, M.D., St. Louis.
1. *Chemotherapy of All Malignant Diseases,* Edward W. Reinhard, M.D., St. Louis.
2. *Immunologic Defects in Patients With Malignancies and Superinfections,* Donald B. Louria, M.D., New York, N. Y.
3. *Genetic Factors Implicated in Malignancies,* William S. Sly, M.D., St. Louis.

2:30 PM *Mycosis and Lung Cancer Manifestations in Missouri* (Sponsored by Missouri State Sanatorium, Mt. Vernon)
1. *Medical and Surgical Management of Pulmonary Histoplasmosis,* John Polk, M.D., Springfield, Chief of Surgical Service, and C. A. Brasher, M.D., Medical Director.
2. *Extra-Thoracic Manifestations of Carcinoma of the Lung,* T. Ertan, M.D., Staff Physician.

Panel Participants (Staff Physicians):
P. A. Reddy, M.D.
M. N. Atay, M.D.
E. Kozdereli, M.D.

4:00 PM Intermission to view exhibits.
6:30 PM Social Hour for those attending the Banquet.
7:15 PM Annual Banquet in Honor of Past Presidents of MSMA.
Guest Speaker, Timothy Hays, Mayor of Whoopup, Missouri.
Dancing until Midnight.

Sunday, March 23

7:30 AM House of Delegates Meeting, breakfast and final session.

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MISSOURI SOCIETY OF MEDICAL TECHNOLOGISTS

22nd Annual Convention

Chase Park Plaza Hotel, St. Louis **March 20-22, 1969**

Stockholm Room

Thursday, March 20

Morning Session

8:00 AM Registration
9:00 AM Invocation
9:05 AM *Address of Welcome,* Mary Heckman, Ph.D., MT(ASCP), Incoming President of MSMT
9:10 AM *Electron Microscopy,* John Taylor, Ph.D., St. Louis
9:45 AM Coffee Break
10:10 AM *Intra-Uterine Transfusion,* Eugene G. Hamilton, M.D., St. Louis
11:00 AM *Chromosome Studies and Genetic Problems,* Patricia Monteleone, M.D., St. Louis

Afternoon Session

1:00 PM *Chemistry of Endocrine Disease,* James Monteleone, M.D., St. Louis
2:00 PM *Immunoelectrophoresis,* Robert H. Sueper, M.D., St. Louis
3:00 PM Coffee Break
3:30 PM *Factor XIII Studies,* John D. Bouhasin, M.D., St. Louis

Friday, March 21

Morning Session

9:00 AM *Rubella Testing,* Lawrence Senterfit, Ph.D., St. Louis
9:45 AM To be announced
10:30 AM Coffee Break
11:00 AM *Immunoelectrophoretic Patterns in Multiple Myeloma Tumors,* George D. Sorenson, M.D., St. Louis

Afternoon Session

1:00 PM *Pathologic Red Cells,* L. W. Diggs, M.D., Memphis, Tenn.
2:30 PM Coffee Break
3:00 PM *Pathologic White Blood Cells*—Continued

Saturday, March 22

Morning Session

9:00 AM *Report on the Recent Advances of the Association of Schools of Allied Health Professions,* Charles E. Berry, LL.B., St. Louis
9:45 AM *A Rapid Test for the Sulfatase "A" Deficiency in Metachromatic Leukodystrophy in Urine,* Mary Jane Sheraikis, Student, St. Louis
10:30 AM Coffee Break
11:00 AM To be announced

Afternoon Session

1:00 PM Business Meeting—MSMT
The annual banquet will be held on Saturday evening. Details to be announced.

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Dr. McCraw Will Head MSMA As President

Doyle C. McCraw, M.D.

David N. Kerr, M.D.

Doyle C. McCraw, M.D., Bolivar, will succeed David N. Kerr, M.D., St. Louis as president of the Missouri State Medical Association during the 111th Annual Session of the organization March 20-23 at the Chase Hotel in St. Louis.

The annual meeting will open with a session of the House of Delegates at 1:30 PM, Thursday, March 20th and conclude with a 7:30 AM, breakfast session of the House on Sunday.

Many topics of scientific and economic interest to physicians are scheduled all day Friday and all day Saturday.

Among highlights of the annual meeting are general luncheons on both Friday and Saturday and a banquet honoring past presidents on Saturday night.

Robert L. Burnes, executive sports editor of the *St. Louis Globe-Democrat,* will be the Friday luncheon speaker. The Honorable Durward G. Hall, M.D., member of Congress from Springfield, will be the general luncheon speaker Saturday.

Guest speaker at the annual banquet Saturday night will be Mayor Timothy Hays of mythical Whoopup, Mo., a noted humorist. Dancing is scheduled after the banquet.

A number of other special events are also scheduled during the annual meeting including Friday—Fifty Year Club Luncheon, Maternal Welfare Committee Luncheon, Missouri University Alumni Luncheon, Missouri Federation of Urologists Dinner, Missouri Radiological Society Dinner, Missouri State Surgical Society Dinner, Missouri Academy of Psychiatry Dinner, Missouri Chapter American Academy of Pediatrics dinner.

Saturday—Missouri Ophthalmological Society luncheon, St. Louis University Medical Alumni cocktail party and Washington University Medical Alumni cocktail party.

Outstanding speakers from all across the nation will be participating in the scientific and economic programs on Friday and Saturday. Programs both days start at 9 AM.

Among programs scheduled Saturday morning will be one jointly sponsored by the Missouri and Bi-State Regional Medical Programs. The Missouri RMP section will be that organization's most extensive effort thus far to demonstrate to Missouri physicians the state of the art of electronic transmission of health information. Featured will be "the telelecture," "automated EKG," and "the computer which aids physicians in diagnostic work." Bi-State RMP will include: "Work, Stress and Coronary Rehabilitation," "Health Manpower to Lessen Your Load," "Library Service for the Practicing Physician," and "Radiation Therapy Support for Your Hospitals."

Legislative Highlights

The introduction of bills in the 75th General Assembly of Missouri continued at a near record pace during the first half of February. As of February 13, a total of 560 bills had been introduced in the Missouri House and 253 in the Missouri Senate.

The Missouri State Medical Association's Legislative Matters Committee is taking a careful look at all health oriented legislation.

The following is a partial list of bills of interest to medicine, most introduced since mid-January.

House Bill 39 provides for the registration of physical therapists under the Board of Registration for the Healing Arts. The bill, as of February 17, had been perfected and was one step away from House approval. The bill follows the broad concept for such registration of paramedical personnel approved by the Missouri State Medical Association.

House Bill 40 provides for mandatory reporting by physicians and others of suspected child abuse to the County Welfare Office. The original bill provided only for such reporting by

(Continued on back page)

MSMA News

MSMA Council Recommends Dues Increase

Recently, there was a great deal of debate by monetary experts concerning whether or not to devalue the French franc. Some were afraid that such a devaluation could result in the devaluation of the American dollar, too.

But we do not need to be international financiers or economists to know that although the American dollar may not have been officially devalued, it has, for all practical purposes, been losing value steadily for quite some time.

The dollar is worth what it can buy. In the last twenty-five years and especially in the last eight years, the buying value of the dollar has gone down appreciably. Wages have gone up and up, but so have food prices and the cost of almost everything else. The nickel candy bar seems destined to go out of existence as did the old-time nickel cigar. And now we hear that new increases in taxes are being considered.

The work-load and the duties and activities of the Executive Office of the Missouri State Medical Association are increasing constantly. We must increase our office personnel accordingly. The diminished purchasing power of the dollar along with greater taxation make it mandatory that we increase the salaries of our office personnel.

The Long-Range Planning Committee of our Council has been hard at work on new proposals for future progress of our Association. Such proposals will cost money. Additional office space was recently obtained, but we will need additional personnel trained to perform any new duties demanded by our expanding responsibilities.

Local and state medical problems must be solved by organizations at these levels. To accomplish all of our present duties and any new ones to be proposed, and for the purposes already mentioned, we must face the fact that more money is needed. Most local medical societies have already had to increase their own dues.

For the information of our members, the following is a comparison of MSMA dues with those of some other state associations.

Arizona	$105.00
Arkansas	75.00
California	90.00
Colorado	90.00
Iowa	125.00
Michigan	100.00
Minnesota	100.00
Missouri	52.50
New York	70.00
Oklahoma	75.00
Oregon	85.00
Pennsylvania	75.00
Washington	97.00

It is obvious from the above comparison that Missouri has lower dues than the other 12 states listed. It may also be worthwhile to note the dues of certain unions, not in criticism, but for the purpose of comparison. For instance, electrical union members pay $120.00 per year plus two per cent of their gross salaries. Sheet metal workers union members pay $180.00 per year. These are just examples, and extra assessments are not included.

The recommended budget of the MSMA for 1969, without taking into consideration any possible new proposals of the Long-Range Planning Committee, shows that expenditures for the year will exceed income by about $11,000.

After extensive study and investigation, the Council of the Missouri State Medical Association recommends that Association dues be increased by $12.50 per year beginning in 1970. This will bring MSMA dues to $65.00 per year for active members not including the $10.00 special assessment earmarked for the Missouri State Medical Foundation.

LEGISLATIVE HIGHLIGHTS (Continued)

physicians but the bill was broadened in committee to include others who come in contact with children. The committee also added a penalty provision. The bill was ready for final House passage as of February 17.

Senate Bill 43 would authorize the gift of all or part of a human body after death for specified purposes. This bill has been approved by Senate Committee. It is the same as House Bill 69.

House Bill 239 makes changes in the present driver blood test bill by lowering the breaking point of presumption of intoxication from 15/100 of 1% to 10/100 of 1% and by passing weight of alcohol in blood upon milligrams of alcohol per 100 milliliters of blood

House Bill 381 provides that physicians and nurses who in good faith render emergency care at the scene of an emergency shall not be liable for any civil damages as a result of acts or omissions in such care.

Senate Bill 146 and House Bill 341 would abolish office of county coroner and provide a system of medicolegal examiners in their place

Senate Bill 142 provides for registration of psychologists under own board.

Senate Bill 172 would provide optometric services to assistance recipients (Medicaid).

Senate Bill 206 changes terminology from abortion to "termination of human pregnancy" — only licensed physician may perform — but only under existence of certain stated conditions after 3 other licensed physicians have certified in writing that they believe that the operation conforms with provisions of the act and certificates and other records shall not be public records and only open to prosecuting attorney or by order of circuit court — includes penalties for violation.

House Bill 475 provides that the procurement, processing, distribution, or use of whole blood, plasma, blood products and blood derivatives for purpose of injecting or transfusing shall not be a sale.

House Bill 581 would authorize the state to contract with the private medical and osteopathic schools to train an increased number of Missouri residents.

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OFFICIAL DELEGATES

111th MSMA Annual Session

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Barton-Dade	Thomas W. Carroll, Lamar	
”	Alvin R. Cain, Lamar	
Benton	James A. Logan, Warsaw	
Boone	John T. Logue, Columbia	Reginald P. Pugh, Columbia
”	Hugh E. Stephenson, Jr., Columbia	Ray B. Lewis, Columbia
”	William B. See, Columbia	Thomas W. Burns, Columbia
”	John H. Walters, Columbia	David G. Hall, Columbia
”	Robert L. Jackson, Columbia	Kenneth K. Keown, Columbia
”	George P. Wilson, Columbia	B. A. Moranville, Columbia
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”	Richard V. Riddell, St. Joseph	Allen I. Herman, St. Joseph
”	Ernest E. Wadlow, St. Joseph	William B. Rost, St. Joseph
Butler-Wayne-Ripley	E. T. Hansbrough, Poplar Bluff	
”	Harold Cline, Piedmont	B. M. McLain, Poplar Bluff
”	Gene Leroux, Doniphan	T. Eugene Ruff, Poplar Bluff
Callaway	Henry Durst, Fulton	Donald Peterson, Fulton
Cape Girardeau	Harold B. Rapp, Cape Girardeau	
”	Melvin C. Kasten, Cape Girardeau	
”	Edwin K. Burford, Cape Girardeau	
Carter-Shannon	Harry D. Rollins, Winona	
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”	James E. Campbell, Macon	Donald E. Eggleston, Macon
”	Floyd A. Barnett, Paris	George M. Ragsdale, Paris
”	Avery P. Rowlette, Moberly	Philip V. Dreyer, Huntsville
Clay	James R. Allan, Excelsior Springs	Lawrence L. Perry, Jr., Kansas City
”	Phillip E. King, Liberty	James W. Hall, Kansas City
”	Truman B. Schertz, N. Kansas City	Robert D. Williams, Smithville
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Cole	Donald Shull, Jefferson City	Byron Watts, Jefferson City
Cooper	Byron Stuart, Boonville	
Dallas-Hickory-Polk	O. A. Griffin, Buffalo	Evelyn Griffin, Buffalo
”	George Robinson, Humansville	
”	Monte R. Kahler, Bolivar	Ben H. Koon, Bolivar
Dunklin	John K. Legan, Kennett	Charles R. Cash, Kennett
Franklin-Gasconade-Warren	Sam Bonney, Washington	Jim Shea, Gerald
”	George Workman, Hermann	Paul Brenner, Owensville
”	Harold Hoelscher, Warrenton	Walter Eyermann, Warrenton
Grand River		
Caldwell	Frank R. Daley, Hamilton	Howard Carter, Hamilton
Carroll	Erroll W. Allen, Carrollton	Jack L. Vinyard, Carrollton
Daviess	J. Larry Dowell, Pattonsburg	Donald M. Dowell, Chillicothe
DeKalb	Edward Nixon, Gallatin	
Grundy	Albert D. Cross, Trenton	William A. Fuson, Trenton
Harrison	Willard Ellsworth, Cainsville	R. S. Weir, Bethany
Linn	John R. Dixon, Brookfield	Robert W. Smith, Marceline
Livingston	Joseph Conrad, Chillicothe	William L. Fair, Chillicothe
Mercer	W. B. Atcheson, Trenton	

County	*Delegates*	*Alternates*
Greene	Stanley S. Peterson, Springfield	Daniel E. Holmes, Springfield
"	F. Thomas Moseley, Springfield	James W. Clawson, Springfield
"	Dallas D. Anthony, Jr., Springfield	J. L. Ferguson, Springfield
"	M. D. Bonebrake, Springfield	Walter A. German, Springfield
"	Robert W. Maher, Springfield	Don E. Menchetti, Springfield
"	James T. Brown, Springfield	William M. Walker, Springfield
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"	Pat Barelli, Kansas City	John Barnard, Jr., Kansas City
"	H. W. Benoit, Jr., Kansas City	Merrill Bay, Blue Springs
"	R. Allen Chandler, Kansas City	G. Neill Berry, Kansas City
"	Roy Drake, Kansas City	H. L. Ketterman, Kansas City
"	William Y. Eubank, Kansas City	Rodger Lambie, Kansas City
"	Robert Forsythe, Kansas City	Richard Lanning, Kansas City
"	Fred D. Fowler, Kansas City	Andrew Mitchell, Kansas City
"	John A. Griffith, Jr. Kansas City	William Mundy, Kansas City
"	Blaine Hibbard, Kansas City	Thomas O'Farrell, Kansas City
"	Kenneth Hollweg, Kansas City	Robert Petitt, Kansas City
"	William Leo, Kansas City	Robert Russell, Raytown
"	George Lytton, Kansas City	Keith Whittaker, Kansas City
"	Frank Mantz, Kansas City	William W. Woodward, Independence
"	Andrew McCanse, Kansas City	
"	Paul McGannon, Kansas City	
"	Thomas McGuire, Kansas City	
"	Wallace McKee, Kansas City	
"	Paul Meyer, Kansas City	
"	William C. Mixson, Kansas City	
"	Samuel Montello, Kansas City	
"	Sidney Rubin, Kansas City	
"	O. Dale Smith, Mission, Kansas	
"	Walter Stelmach, Kansas City	
"	E. H. Stratemeier, Kansas City	
"	Charles Wheeler, Jr., Kansas City	
"	Paul R. Young, Kansas City	
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"	R. R. Cohle, Carthage	W. T. McNew, Carthage
"	Robert G. Powell, Joplin	S. D. Papp, Joplin
Jefferson	David S. Glasgow, Crystal City	J. Logan, Mayfield, Crystal City
Johnson	M. G. Gonzalez, Warrensburg	C. M. Lederer, Warrensburg
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"	George Davault, Richmond	Herbert K. Huber, Richmond
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"	Earl E. Gilfillan, Memphis	
Lincoln-St. Charles	Louis P. Hetlage, Troy	Paul T. Berry, Troy
"	Paul H. Rother, St. Charles	W. H. Poggemeier, Jr., St. Charles
Marion-Ralls-Shelby	Phillip B. Foreman, Hannibal	
"	Thomas J. Fischer, Hannibal	
"	Charles Lichty, Shelbina	
Mid-Missouri		
Phelps	K. M. Kays, Rolla	D. F. Andreassen, Rolla
Crawford	A. R. Baumann, Steelville	Frank Elders, Cuba

County	*Delegates*	*Alternates*
Dent	M. N. Hart, Salem	B. J. Bass, Salem
Pulaski	Rae W. Froelich, Lebanon	L. A. Bealer, Lebanon
Maries	B. E. Russell, Rolla	T. P. Smith, Rolla
Laclede	Tom Beene, Lebanon	Howard Carrington, Lebanon
Miller		-
Mineral Area		
St. Francois	Retus Osborn, Farmington	C. W. Chastain, Farmington
Iron	Robert Dettmer, Ironton	Marvin Menne, Ironton
Madison	Marvin Grossman, Fredericktown	Robert Huckstep, Farmington
Washington	Kirby Turner, Potosi	George Cresswell, Potosi
Reynolds	Ben Bull, Ironton	Tom Burcham, Farmington
Moniteau	Richard B. Fulks, California	L. M. Gallagher, California
Montgomery	E. J. T. Andersen, Montgomery City	S. J. Byland, Wellsville
Morgan	Ruth Kauffman, Versailles	J. Loren Washburn, Versailles
North Central		
Adair	Paul E. Hilton, Kirksville	Robert W. Buben, Kirksville
Knox	W. B. Isom, Knox City	Francis Tarvydas, Edina
Schuyler		
Sullivan		
Putnam		
Northwest		
Nodaway	Elvin D. Imes, Maryville	B. F. Byland, Maryville
Holt	James Humphrey, Mound City	Jon R. Leach, Maryville
Atchison	Edward L. Niedermeyer, Tarkio	John Wanamaker, Rockport
Gentry	Bernie Parsons, Albany	Robert E. Dunshee, Maryville
Worth	Frank B. Matteson, Grant City	Troy O. Morgan, Albany
Ozarks		
Barry	Robert R. Donley, Monett	Mary Newman, Cassville
Lawrence	Kenneth Glover, Mount Vernon	William Hamilton, Aurora
Stone	F. L. Wommack, Crane	Joseph Gardner, Reed Springs
Christian	Stanley D. Roper, Ozark	Charles Brasher, Mt. Vernon
Taney	James Crain, Branson	Roy Gillispie, Branson
Newton	Roy Kenney, Neosho	Wilbur Dabbs, Neosho
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49	Ayerst Laboratories New York, N. Y.
19	Blue Cross-Blue Shield St. Louis
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33	Bristol Laboratories Syracuse, N. Y.
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38	Hewlett-Packard Company Skokie, Ill.
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14	Knoll Pharmaceutical Company Orange, N. J.
43	Lederle Laboratories Pearl River, N. Y.
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5	Merck Sharp & Dohme West Point, Pa.
29	Miller Pharmacal Company St. Louis
36	Missouri Alcoholism & Drug Abuse Program Missouri Division of Mental Diseases Jefferson City
21	Missouri School for Doctors' Assistants, Inc. St. Louis
24	Missouri Seven-Up Bottlers Association St. Louis
18	Ortho Pharmaceutical Corporation Raritan, N. J.
13	Parke, Davis & Company Detroit, Mich.
44	Philips Roxane Laboratories, Inc. Columbus, Ohio
17	Professional Management Midwest Prairie Village, Kan.
26	J. B. Roerig and Company New York, N. Y.
48	Rowell Laboratories, Inc. Baudette, Minn.
39	St. Louis District Dairy Council St. Louis
41	Sandoz Pharmaceuticals Hanover, N. J.
11	W. B. Saunders Company Philadelphia, Pa.
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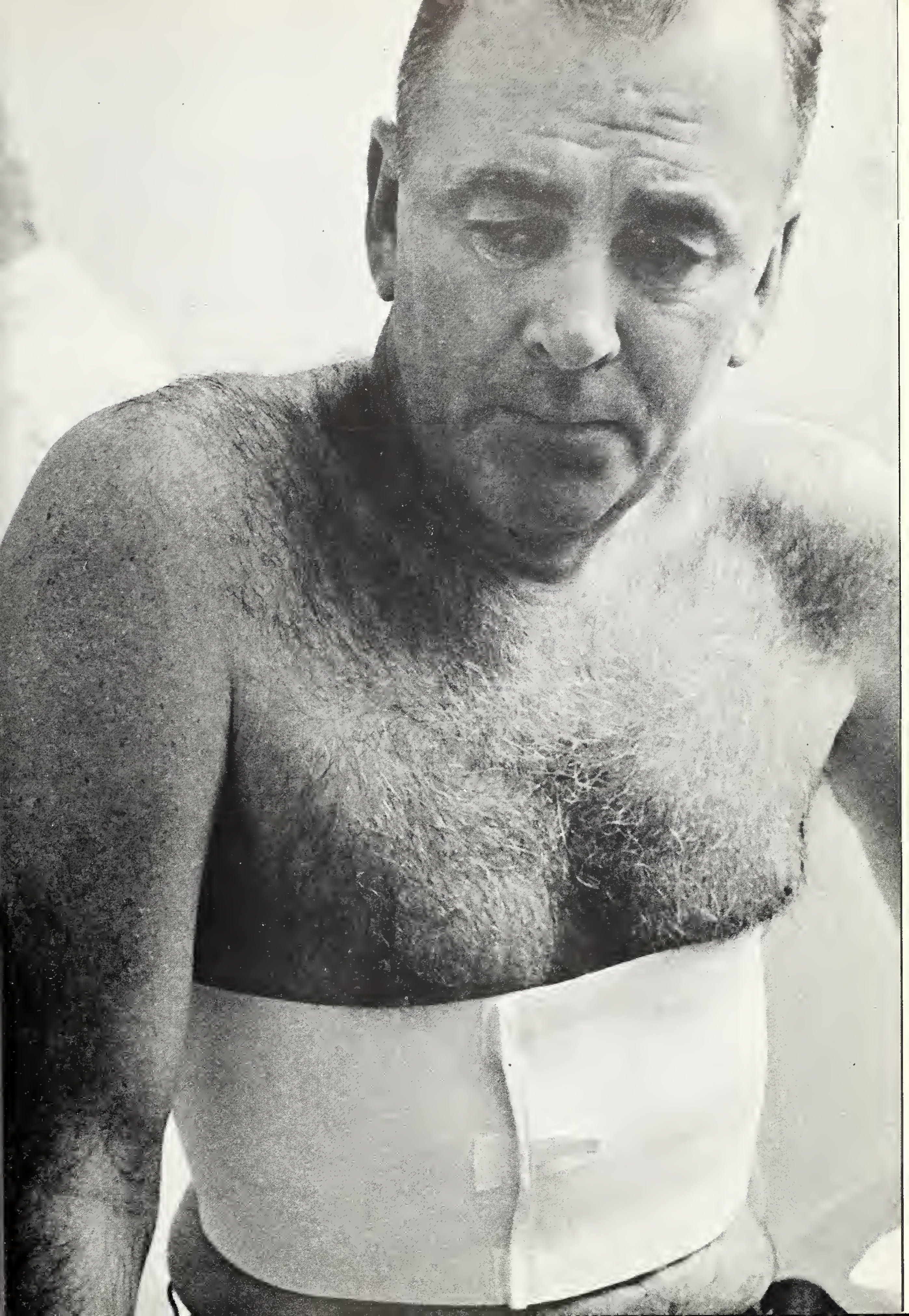


The Council Reports

Special Meeting—Jan. 11, 1969

Joseph L. Fisher, M.D., St. Joseph, Chairman, called the meeting to order. Those present were Drs. Fisher; Lysle M. Bach, Hannibal; James C. Cope, Columbia; Rolla B. Wray, Nevada; Gerald L. Miller, Kansas City; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; David N. Kerr, St. Louis; Doyle C. McCraw, Bolivar; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; Hector W. Benoit, Kansas City; J. L. Washburn, Versailles; Arthur W. Neilson, St. Louis; Robert L. Mayer, University City; James C. Sisk, Clayton; John Buesseler, Columbia; Messrs. Ray McIntyre, Royal Cooper, Bob Carroll, Jefferson City; Hollister S. Smith, St. Louis; Allen D. Smith, Kansas City.

Dr. Fisher called the meeting to order and announced that he had called the meeting to consider the action taken by the American Medical Association House of Delegates at the Clinical Session in Miami Beach last December on studying health care costs as they might relate to the MSMA proposed study.

He asked Dr. Benoit to discuss the AMA House action as well as to give the background of plans for a health care cost study which has been under discussion by the Missouri State Medical Association for almost a year.

Dr. Benoit said that the Wisconsin Delegation at the recent AMA Miami Beach session had introduced a Resolution (No. 39) calling for a study of health care costs by the AMA. Reference Committee F proposed a substitute resolution for the Wisconsin resolution and the substitute was adopted by the AMA House of Delegates. The substitute resolution states:

> *Resolved*, That the House of Delegates recognize that the responsibility of physicians and of the American Medical Association to help in controlling the increasing cost of health care requires accurate, reliable and current data on these costs for effective action; and be it further
>
> *Resolved*, That the Board of Trustees be requested to expedite and expand existing programs and, where necessary, develop new programs for the following purposes:
>
> (1) Analysis of health care costs and expenditure data developed and reported by other sources;
>
> (2) Definitions, reports and explanations of the several major categories of health care expenditures; and
>
> (3) Dissemination of the data, findings and conclusions of such studies to constituent medical associations, component medical societies, news media and state and federal governmental authorities, so that the many components of health care costs and expenditures may be placed in their proper perspective; and be it further
>
> *Resolved*, That the Board of Trustees consider this a mandate rather than an option and that it devote sufficient staff, facilities, and funds to develop an effective program for immediate and on-going studies of health care costs; and be it further
>
> *Resolved*, That the Board of Trustees report on the status of its program to the House of Delegates at the Annual Session in July, 1969.

Considerable discussion followed concerning the ways in which the AMA might implement the mandate. Much of the discussion centered on the way such a study would be financed and whether or not component medical associations would share in the cost.

After the discussion, the following motion by Dr. Benoit, duly seconded, was unanimously approved.

> The Council of the Missouri State Medical Association wishes to urge that the American Medical Association implement the mandate of Substitute Resolution 39 (C-68) as quickly as possible. It further wishes to reaffirm the action taken by the Missouri State Medical Association House of Delegates in March of 1968 on a proposed study of Health Care Costs which was as follows:
>
> 1. We approve the proposed study as outlined by the Research Center (University of Missouri) because we think it is needed and it should be done as quickly as possible.
> 2. We think it should be presented to the AMA for implementation and funding because it involves every physician in America.
> 3. The physicians in Missouri fully support the proposed study and offer their cooperation in using the State of Missouri as a sampling area.
> 4. If another sample area or research organization is preferred by the AMA, this is agreeable.
> 5. The cooperation of the Pharmaceutical Industry, the Hospital Association, the Health Insurance Industry, the Dental Association and the Osteopathic Association in the test area should be sought to give depth and breadth to the study.

—30—

Miss Helen Penn

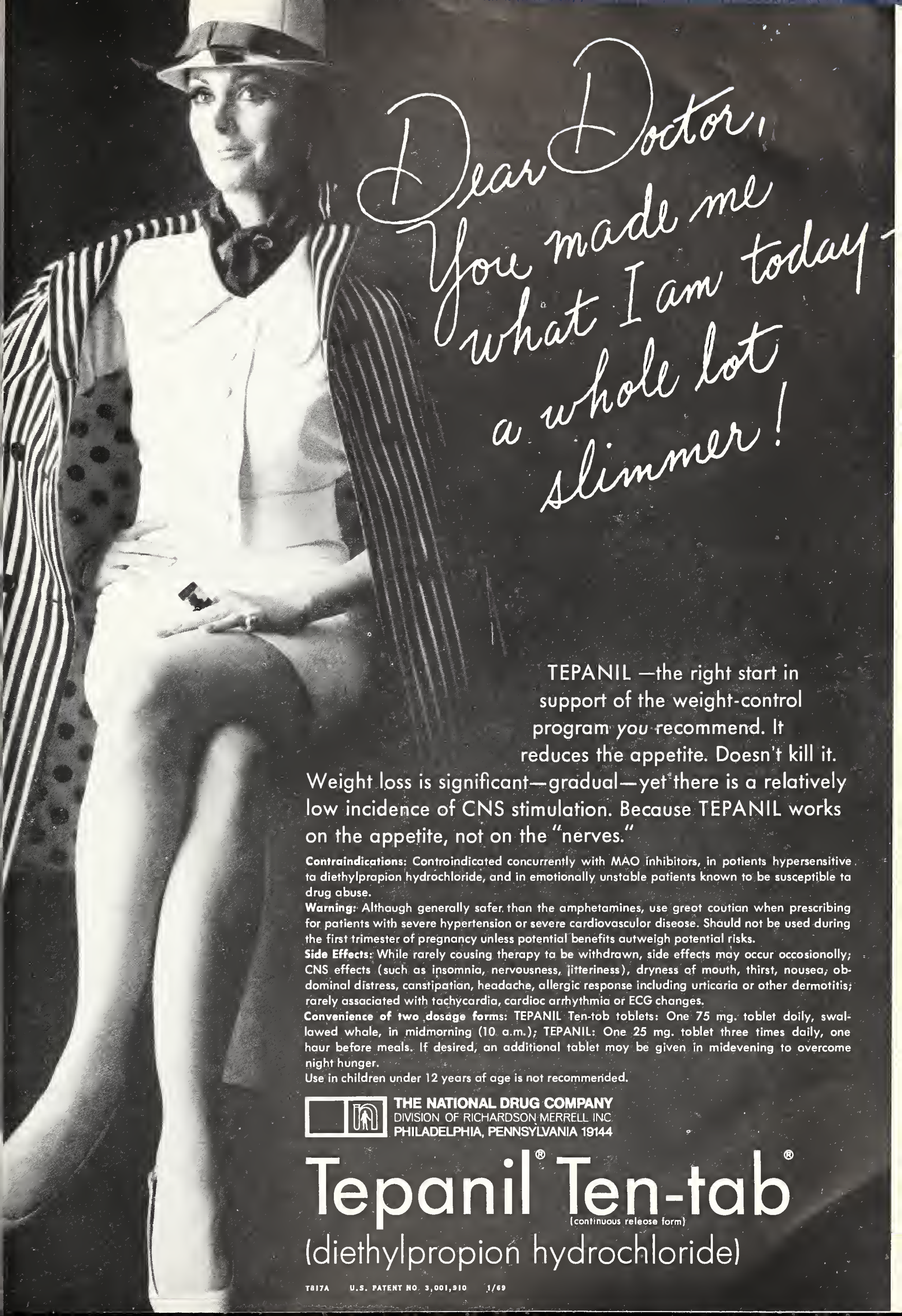
Miss Helen Penn, a former member of the MSMA executive staff and Assistant Editor of Missouri Medicine, died on February 15, 1969 in St. Louis.

A native of Kahoka, Mo., Miss Penn attended Howard Payne College (now a part of Central Methodist College in Fayette), received a Bachelor of Science degree from the University of Chicago and a Bachelor of Journalism degree from the University of Missouri. She acquired practical experience, first as a bacteriologist and then as a journalist, which provided her with an excellent background for scientific journalism.

Miss Penn joined the executive office staff in 1930 when the late Edward J. Goodwin, M.D., was full time Secretary of the Association and Editor of Missouri Medicine. She served as his assistant in both capacities.

In 1942, Miss Penn was named Assistant Editor of Missouri Medicine. She became a member of the Medical Writers' Association and served one term as a member of its board of directors. She had been active and held office in the St. Louis chapters of Zonta International and American Association of University Women.

On the advice of her physician, Miss Penn retired on January 1, 1965 after completing 34 years of service with the MSMA. During 22 of these years, she set the style and directed the production of this Journal. In so doing, she laid the groundwork for Missouri Medicine as it appears today.



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Notes of interest from Here . . . . and There

Four members of the MSMA have been elected officers of the Southern Medical Association and will participate in arranging programs for the 63rd Annual Meeting of the Association which will be held in Atlanta, Ga., on November 11-13. They are **Drs. Barney W. Finkel,** St. Louis, Chairman, Section on General Practice; **Ian M. Thompson,** Columbia, Secretary, Section on Urology; **Lester E. Wolcott,** Columbia, Secretary, Section on Physical Medicine and Rehabilitation; and **Vincent E. Perna,** St. Louis, Vice-Chairman; Section on Pathology.

Dr. Byron M. Stuart, Boonville, was presented a 20-year pin and certificate for uncompensated service as medical advisor to the Cooper County Selective Service Board No. 27.—**Dr. Marshall Conrad,** St. Louis, received a Certificate of Citation as medical officer for the Webster Groves Fire Department. Dr. Conrad serves the fire department on a voluntary basis and has been active in many of its training programs.

Dr. Robert Tanner, Jefferson City, has been elected president of St. Mary's Hospital medical staff. He will succeed **Dr. Francis X. Meier.** Other officers elected recently were **Drs. Jack S. Sanders,** President-Elect and **Alvon C. Winegar,** Secretary-Treasurer. New members of the Executive Committee are **Drs. Robert E. Bregant** and **Jerome H. Schmidt.**

Dr. John J. O'Hearne, Kansas City, has been elected a member of the Board of Directors of the American Group Psychotherapy Association for a three-year term and is presently serving an appointment as Co-Chairman of that Association's Program Committee.

Dr. W. R. Jackson, Maryville, has been named Chief of Staff at St. Francis Hospital. He replaces **Dr. B. F. Byland.** Also named to offices on the medical staff were **Drs. E. D. Imes,** Vice-Chief, and **H. C. Bauman,** Secretary.—**Dr. James R. Keeler,** Kansas City, has been elected President of the St. Luke's Hospital medical staff, succeeding **Dr. Mark Dodge.** Other newly-elected officers are **Drs. Robert E. Allen,** President-Elect; **Blaine Z. Hibbard,** Vice-President; and **Raymond W. Stockton,** Secretary.

Dr. Ross Giem has reestablished his practice of general surgery and medicine in Sullivan. His office is in the medical building of **Dr. John de la Torre.** Dr. Giem practiced medicine in Sullivan from 1961 to February, 1968. He has been practicing in California.

Special Article

Medicare Administrative Alternatives, Prospects and Trends

JOHN A. BUESSELER, M.D.
Columbia

With the enactment of Medicare legislation by the 89th Congress in 1965, the federal government committed itself to the responsibility of financing the health needs of a large segment of the population. The magnitude of the program gives it a potentially overwhelming directional influence over the health care system of the nation. As a prognostic view of these influences, this paper was presented originally at the 12th Annual Forum of the National Committee for Research in Ophthalmology and Blindness. Doctor Buesseler holds a Master of Science degree in Business Administration and is a Ph.D. candidate in Business and Public Administration. He is a Professor of Surgery (Ophthalmology) at the University of Missouri School of Medicine.

DATELINE, WASHINGTON, D. C., Oct. 19, 1968: The American farmer of the future may be just on the bottom step of a giant ladder-like system that will plant, harvest, process and package the nation's food all under one economic roof. However, the prospect, as envisioned by a number of agricultural experts, is not viewed with universal enthusiasm. Professor Elmer R. Kiehl, Dean, College of Agriculture, University of Missouri, said that a farming system too tightly structured could result in "economic feudalism not unlike that of the Middle Ages in Western Europe." Under such circumstances, Kiehl said that the farmer, as he is thought of today, would no longer exist.

He was speaking of the main topic under discussion in Washington at the Agricultural Research Institute of the National Academy of Science. The hybrid-corporate or quasi-nongovernmental corporate farm of the future would contract the actual tilling of the soil and tending of animals. Efficiency, relying upon the use of computers, would be the keynote in virtually every phase of the giant corporation from scheduling and planning to projecting consumer demand. Big food processing companies and nationwide grocery chains already are headed in this direction, according to the specialists.

The relative position of the farmer economically in the American food production-distribution system is indicated by the fact that the retail consumers spend 100 billion dollars annually on food while the farmers receive 12 billion in income.[1]

That sufficiency of food is considered a right of members of our society is fairly well attested to by the welfare laws. That farming is considered a quasi-utility also is fairly well supported by the mechanisms of subsidy and regulation effected through the Department of Agriculture.

DIRECTIONAL FORCES

This news release indicates rather forcefully that medicine is not alone in feeling the pressures for rapid and sweeping organizational change. Many of the same basic forces affecting the health care system also are affecting other organizational systems in this country.

My purpose is to identify and focus on some of the directional forces which are operating in our social environment and are directly or indirectly influencing the course of change occurring in the American health care system in general and in the administrative conduct of Medicare in particular.

It is not my intention to suggest value judgments regarding the desirability or lack of desirability of the direction in which these forces are moving society, but, rather, to explore briefly their impact as manifested in the trends affecting our medical care system.

Efficiency. Foremost among these trends is the drive for efficiency, particularly in the use of facilities. The echelonment of health institutions has been well demonstrated by the military services. Much is found in the current literature about comprehensive health plans and hospital administration, suggesting that these military techniques and devices be used in the civilian sector and that centralized teaching in specialty care institutions be the hub of the wheel around which satellite facilities with lesser capabilities would exist.

This already has been occurring on an evolutionary basis. With greater control of society's direction by legislation, however, the process may well increase. Such echelonment will place teaching hospitals in a position of particular preeminence not only educationally, but in the rendering of care and in the referral scheme for patients.

Additionally, the drive for efficiency is directed to the use of personnel. The big push in recent health care legislation governing allied health manpower points dramatically to this. Ancillary personnel, both in administrative and in technical health fields, is expected to come into the practice of medicine in much greater numbers and variety.

This is intended to supplement the capabilities of the individual physician so that his skills are distributed more widely and so that he is less encumbered with details of administrative processing and with the more mechanical routine details of diagnostic and therapeutic procedures.

The implications of enlargement in this body of health care workers is quite apparent. Ophthalmology has felt this as much or more than some other fields in medicine. For several decades, the optometrist has represented this kind of skill, operating autonomously rather than as an integrated part of the health team.

Economy. The second trend which seems apparent, regardless of the national political drift, is for economy. Greater emphasis by the government on cost accounting and cost control is being instituted. The concept of unit cost in health care has great attraction to many hospital controllers, governmental planners and administrators. It is a unit by which they can measure service. Whether or not it is a snare and a delusion is open to question. Whether grading services by X number of unit values is one with which the physician can live remains to be seen.

In the realm of hospital services, unit cost is making its biggest advances largely under the pressure of the reasonable cost element in the Medicare law. As yet, reasonable cost has not been imposed upon the physician. Reasonable charges have. By virtue of steady escalation of financial commitment by the government to the Medicare-Medicaid program, the dollar totals have far exceeded cost estimates prior to institution of the program. Powerful forces are declaring that it is necessary to control the reasonableness of the costs and the charges.

In this regard, organized medicine may lose the support of one of its staunchest allies, private industry. Industry itself is pressing for greater economy and efficiency in the delivery of health care. This drive for economy is manifested in pressure for more restricted budgeting of costs for services rendered by both the hospitals and physicians.

The most popular concept under consideration is *advance budgetary review* for hospitals under the Medicare program. This allows for justification, acceptance of cost and payment before the fact rather than payment after the fact. The present scheme of paying after the fact does not appear viable. Hospitals are being pressed to come forth with advanced, detailed budgets to be reviewed prior to any commitment on the part of the government for Medicare payments.

Most people who have been involved with government-sponsored research are familiar with such techniques in regard to research grants. The hospitals, as yet, have not been fully subjected to it.

How will this affect the physician who is geared to a fee-for-service varying with the number of visits and the type of case? It is apparent that the reasonable charge (usual and customary) is only an interim situation. It was necessary for Congress to incorporate that condition in the Medicare law in order to obtain physician acceptance. Organized medicine has embraced the concept but, with constant pressures for cost control, most of the people concerned with the Medicare legislation are convinced that the reasonable charge is not going to last. The alternatives are obvious: (1) the fixed fee schedule or (2) the annual contract salary.

Control. The third drive which is being experienced across society is that for centralized control. Except for those short periods of restrictive legislation accompanying our past wars, the Comprehensive Health Planning Act is the single, most sweeping and broad centralized control of the allocation of resources that Congress has ever passed.

Controls via the Medicare mechanism appear to be manifested in a centralized control of quality. No longer will the medical profession have the sole prerogative. Care standards, however, need better defined criteria than have been developed to measure quality. The methods now used for measuring quality, utilization review committees, tissue committees, etc., are off target in providing a true measurement. More and more the payer will inject his influence into the determination of quality. And more and more the payer is the federal government.

It appears that terms of access to health care services will be removed more completely from the medical profession and placed in the hands of the third party payer. The trend for more complete insurance coverage through government control appears on the horizon. Coverage of all age groups and income levels is becoming a bipartisan political goal. Many devices have been proposed; particularly noteworthy among them are the use of negative income tax payment and variable premium payment based on reported income level.

What is the status of the physician going to be in relation to other health care workers? This, too, will not be decided exclusively by the medical profession, but rather by the vested interest groups that become established through increase in ancillary workers and through consumer interests in health care. Not unlike the field of agriculture, the cost of health care services to the third party payer indicates that the physician's portion of total cost is rather small. For him to maintain his position of preeminence and captain of the ship will require negotiation in the democracy of interaction between vested interest groups. This will extend to working conditions with the terms of practice and remuneration negotiated between vested interest organizations and payer.

I would like to quote the authorities Herman and Anne Somers from their Brookings Institution report titled *Medicare in the Hospitals, Issues and Prospects:* "It should be obvious by now that the term 'reasonable costs' is by no means self-defining. The law inevitably left much to be resolved through bargaining, pressure and counterpressure—a normal process in setting a price for a massive purchase. It establishes certain boundaries, but permits broad, administrative discretion, after consultation with the parties in interest, and consideration of customary practices. Nothing else would have been practical. Only theoretically can government unilaterally set the price at the point it considers right. In a free economy, government decisions must find an equilibrium between abstract justice and operational feasibility. The government is a powerful buyer, but the sellers are free men and free institutions. They must come from the deliberations reasonably satisfied that they have been dealt with fairly, if the program is to operate with the necessary consent and cooperation."[2]

Of all the trends in Medicare, this latter trend has the greatest impact on the individual practicing physician. It is apparent that the man without an organization to represent him, is a man without representation. With the advent of Medicare, the medical societies, either the existing ones or ones to be evolved, were placed in the position in which they could become the physicians' most important representatives at the bargaining table.

SUMMARY

I have intended to keep out of this presentation any value judgments. The intent has been to identify trends, not necessarily situations that are currently operational. What is operational in Medicaid (Title XIX) indicates a potential trend for Medicare (Title XVIII), both of which are part of the same Congressional Act. What is happening in New York under Medicaid actually is happening under the Act which is generally referred to in its entirety as Medicare. **Although no medical society operating on a national or regional basis has fully accepted the role of collective bargaining agent, its organizational presence in a socio-economic system of vested interest groups mediated by Medicare legislation is pushing it toward that functional position.**

The goals of the trend-producing directional forces are greater efficiency, greater economy and greater centralization of control. **The guidance the medical profession can effectively exert in the shaping of these goals for the best protection of the patient is dependent upon the direction taken by the organizational changes presently occurring within the profession.**

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WASHINGTON

Robert H. Finch, the new secretary of Health, Education and Welfare, is giving health care costs a high priority in tackling the department's problems.

Even before he was sworn in as secretary, Finch made an unannounced call on chairman Wilbur D. Mills (D., Ark.) of the House Ways and Means Committee, which has jurisdiction over HEW's medicare and medicaid programs. Afterwards Finch said his staff would confer with Mill's staff to consider legislation or regulations that could combat higher health care costs.

"His staff and my people are going into this to see what we can do about the skyrocketing costs—especially hospitalization where 70% of the costs are labor," Finch said.

The former California lieutenant governor said he was thinking about the pilot program in his native state—which he called a para-medical program—whereby long stays in the hospitals are shortened by putting people in intensive care centers. If hospital stays could be shortened, he said that "massive savings would result."

Mills was reported as favoring broadened medicare benefits or hospital care to cover disabled workers, who, by nature of their disabilities, receive Social Security payments—but because they are under 65—are ineligible for medicare. He also was reported to be concerned over increases in hospital charges and doctors' fees.

Several members of Congress have expressed concern over increases in the federal costs of medicare and medicaid. The Johnson Administration's budget for fiscal 1970, starting next July 1, allots $6.9 billion, up $636 million, for medicare and $3 billion, up $600 million, for medicaid.

A bill, introduced by Sen. George Aiken (R., Vt.) with Senate Majority leader Mike Mansfield (Mont.) and Sen. Winston Prouty (R., Vt.) as co-authors, would do away with the present "usual and customary charge concept," place all physicians on assignment and reimburse them through the average payment for the same service provided by the local Blue Shield. Deductibles and co-insurance would be eliminated, among many other changes.

The Labor Department reported that medical costs, including both hospitalization and physicians' fees, rose 7.3% for the calendar year 1968. Finch said that the Nixon Administration's HEW budget requests would be about the same size as the $17.5 billion submitted by the Johnson Administration, but that there would be changes within the overall total. Estimated total federal spending in the health field will rise to $18.3 billion.

HEW said that national spending for health care, both government and private, continued to rise in fiscal 1968. The total for 1968 was $53.1 billion, $33.7 billion private and $19.4 billion government. This compared with $47.9 billion ($32.2 billion private and $15.7 government) for fiscal 1967. In fiscal 1960, it was $26.4 billion—$20 billion private and $6.4 billion government.

* * *

A Federal Communications Commission proposal to ban cigarette advertising on radio and television put the issue squarely before Congress again.

In 1965, Congress outlawed any federal or state controls on cigarette ads as a provision of the legislation that made mandatory that cigarette packages carry the warning: "Caution: Cigarette Smoking May Be Hazardous to Your Health." Proponents of the electronic advertising ban contend that the package warning doesn't make enough impact.

Even before the FCC announcement, some members of Congress were saying that the provision outlawing federal and state controls over cigarette advertising should be allowed to expire on June 3. However, congressional reaction to the FCC ruling was mixed.

The American Medical Association House of Delegates, at its meeting in Miami Beach last December, declined to approve a resolution condemning cigarette advertising on TV. Instead, it adopted a resolution urging that AMA members "play a major role against cigarette smoking by personal example and by advice regarding the health hazards of smoking." The adopted resolution also made it Association policy that the AMA "discourage smoking by means of public pronouncements and educational programs" and "take a strong stand against smoking by every means at its command."

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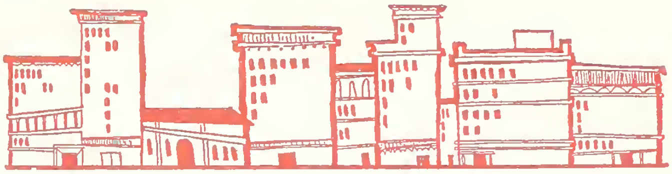

ST. LOUIS UNIVERSITY

The St. Louis University Medical Alumni Association will sponsor a reception and cocktail party during the Missouri State Medical Association's Annual Session. It will be held in the Empire Room, Chase-Park Plaza Hotel in St. Louis on Saturday, March 22 from 5 PM to 6:30 PM. Medical alumni are invited to attend.

Tours to acquaint faculty, alumni and friends were conducted throughout the renovated and remodeled area of the teaching and research facilities at the St. Louis University School of Medicine on February 4.

Dr. Milford O. Rouse, Immediate Past-President of the American Medical Association, and Dr. Stanley E. Krumbiegel, acting regional health director of the Department of Health, Education and Welfare, were present at the open house.

Projects costing $1,648,000 were supported by a grant from the United States Public Health Service which was matched by University funds. Associated with the renovation, but not a part of the federal grant, was the refurbishing of the School of Medicine library.

Major improvements included the renovation of the teaching laboratories, namely: the microanatomy teaching laboratory and the microbiology-pathology teaching laboratory on the third floor of the school and the physiology-pharmacology laboratory on the fourth floor.

A central air-conditioning plant for the four main student lecture halls was installed. Both the administrative offices and the research laboratories of the departments of microbiology and pathology were remodeled, and a new air-conditioning and ventilating system was installed for the fifth floor animal care facilities which was redesigned to meet the recommendations of the National Institutes of Health.

Renovations also included a one-story addition to the cancer research wing of Firmin Desloge Hospital, 1325 S. Grand Blvd., to provide research space for the department of gynecology and obstetrics.

The medical center library has been expanded to almost double its size. Renovations included the conversion of a small classroom and office space into library purposes

UNIVERSITY OF MISSOURI

A "Milton D. Overholser Lectureship in the School of Medicine," to honor a longtime professor in the department of anatomy, has been established through a trust fund held by the University of Missouri. Trustees of Phi Beta Pi, medical social fraternity, set up the trust with funds derived from the sale of property which for many years provided housing for medical students here. The income from the fund will be used to provide transportation and honoraria costs for a visiting lecturer in the field of medicine annually.

Always interested in students and their activities, Dr. Overholser served for many years as faculty advisor to Phi Beta Pi and as counselor for the Missouri chapter of Alpha Omega Alpha, national honorary fraternity in medicine. A native of Missouri, he received an A.B. in 1923 and an M.A. in anatomy in 1924 at the University of Missouri-Columbia. He earned a Ph.D. and an M.D. degree from New York University and Bellevue Hospital Medical College, where he was a member of the faculty while working toward advanced degrees.

He returned to Missouri in 1931 and in 1934

PRESCRIPTIONS

Would you mind my asking, sir? What IS your trouble?

was named chairman of the department of anatomy, a post he held until 1966 when he returned to full-time teaching and research. More than 30 published articles attest to his productivity in the latter.

He received the Medical Alumni Citation in 1964 as one of Missouri's distinguished graduates. In 1964, the yearbook of the School of Medicine was dedicated to him, one of the highest honors which medical students can confer upon a member of the faculty.

Gross anatomy has been Dr. Overholser's continuing interest throughout a long and productive teaching career, and hundreds of physicians who received their training at Missouri learned the rudiments of human anatomy under his dedicated direction.

Three Columbia physicians who served as trustees to Phi Beta Pi and are former students are Dr. M. E. Windmiller, Dr. Judson I. Chalkley and Dr. James C. Cope. The Missouri chapter, chartered on March 10, 1906, disbanded three years ago—a sign of changing times. Since medical students now are married and many live in modern apartments, the old house on Rollins Street was sold.

The American Medical Association and the U. S. Agency for International Development have extended a contract with the University of Missouri-Columbia that allows continuation of its department of pathology's program of medical education in South Vietnam. The agreement between AMA-AID and the University, renewable every six months, provides for the development and maintenance of an interdepartmental relationship between the pathology department in the School of Medicine in Columbia and the counterpart department of the Faculty of Medicine of the University of Saigon. Purpose of the program is to teach Vietnamese medical technicians and medical students the methods used in American hospital laboratories.

WASHINGTON UNIVERSITY

Six Washington University School of Medicine faculty members have received promotions.

Three promoted from assistant professors are Malcolm L. Peterson, M.D., Ph.D., associate professor of medicine; William R. Sherman, Ph.D., associate professor of biochemistry in psychiatry; and Tom W. Staple, M.D., associate professor of radiology.

Elevated from instructors to assistant professors are Robert S. Frech, M.D. and Joseph M. Gilson, M.D., assistant professors of radiology; and Warren A. Weinberg, M.D., assistant professor of pediatrics and instructor in neurology.

Signing of the contract for a $3 million addition to the Edward Mallinckrodt Institute of Radiology has been announced by Juan M. Taveras, M.D., Institute director and professor and head of the Department of Radiology of Washington University School of Medicine.

Construction will include a four-story addition to the present eight floors, plus a new five-story building to rise to the west of the Institute, which is located at 510 South Kingshighway Blvd.

The building houses the radiology department facilities for diagnosis, therapy and research for Washington University Medical School and Associated Hospitals. The present sixth, seventh and eighth floors will be remodeled to accommodate expanded divisions of the radiology department.

The sixth floor will contain facilities of the division of radiation physics, which is directed by Michel M. Ter-Pogossian, Ph.D., professor of radiation physics in radiology. Research in the division of radiation therapy, conducted by William E. Powers, M.D., professor of radiology, will be carried on in the seventh floor. The eighth floor will be expanded to include space for ultrasound research, an electrical shop and a research machine shop.

The laboratories of radiation biology, directed by Leonard J. Tolmach, Ph.D., professor of radiation biology, will be contained on the tenth floor. Mechanical equipment will occupy most of the 11th floor.

The new five-story Institute building will adjoin the entire length of the present structure and will extend 50 feet toward Kingshighway Blvd.

The ground floor will house a new linear accelerator, a device which will produce 50 million volts of electricity. It will be used for radiation therapy as well as in the production of isotopes for use in research. A special laminagraph and other equipment used to pinpoint areas for radiation treatment also will be on this level.

Examining and reception areas and an auditorium will occupy the first and mezzanine floors. Plans for the other levels of the structure have not been finalized.

Of the total cost, $635,000 will be supplied by U. S. Public Health Service grants for research facilities and for a radiation therapy center.

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WILLIAM SHIEBER, M.D., ***St. Louis***

Popliteal to Dorsalis Pedis By-Pass

Case Reports

The historical evolution of arterial reconstructive procedures for occlusive disease basically has been one of successful repair of progressively smaller and smaller vessels. The early operations upon the aorta have been followed in turn by treatment of occlusions of the iliac, femoral and popliteal arteries.

For many years, the distal limit for reconstructive procedures was the popliteal arteries. Direct arterial surgery beyond this point was felt to be doomed to failure because of the small size of the vessels involved and the poor "run-off" from this arterial bed. As experience was gained with the use of autogenous vein by-pass procedures, however, it became obvious that "run-off" per se was not a limiting factor for successful grafts. Implantation of the distal end of an autogenous saphenous vein graft into an isolated popliteal segment (with, in effect, no "run-off") was shown to be attended by a high success rate when properly performed.[1]

Refinements in techniques for suturing small blood vessels have resulted in high patency rates for anastomoses of vessels of 1 mm to 2 mm in diameter.[2, 3] Obviously, careful meticulous technique, small instruments, fine suture materials and magnification aids are essential to achieve these results.

The utilization of the techniques for small vessel anastomoses and the better understanding of the principles of grafting in relation to inflow and outflow requirements have permitted successful grafting to vessels below the popliteal trifurcation. Successful saphenous vein bypass grafts to the anterior tibial, posterior tibial and peroneal arteries at the level of the ankle have been reported in the past two years.[4–9] Establishment of flow through any one of these three vessels has resulted in revascularization of an extremity and salvage of the limb.

This report calls attention to the dorsalis pedis artery for use in arterial reconstruction. Reports of two patients in whom limb salvage was achieved by the use of an autogenous saphenous vein graft distal to the ankle are presented. The dorsalis pedis artery was used for the distal anastomosis in these patients when it was found

The first report in the literature of successful anastomoses to a vessel distal to the ankle, according to the author. This presentation includes case reports of two patients with successful popliteal to dorsalis pedis artery by-pass grafts, both of which resulted in limb salvage. The author describes in detail the technique of grafting; each case required a different technical approach. Dr. Shieber is from the Department of Surgery, The Jewish Hospital of St. Louis and Washington University School of Medicine.

to be the only significant vessel distal to the popliteal artery which was patent and suitable for grafting. To my knowledge, this represents the first report of successful anastomoses to a vessel distal to the ankle.

Case Reports

Case # 1. A 65-year-old woman was in good health and working daily, when a painful ulcer spontaneously appeared on the lateral aspect of her right fifth toe in November, 1966. During the next two months, this ulcer enlarged and new ulcers developed on the adjacent portions of the right fourth and fifth toes ("kissing ulcers") and on the medial aspect of the right great toe. She was treated by her physician with tolazoline (Priscoline), 25 mgs q.i.d., with no improvement.

On admission to the Jewish Hospital of St. Louis in February, 1967, she had strong femoral pulses bilaterally. A weak popliteal pulse was palpable on the right and none was felt on the left (uninvolved side). Dorsalis pedis and posterior tibial pulses were not palpable in either extremity. Four painful ulcers were present in the right foot, as follows:

1. Over the head of the fifth metatarsal (about 11 mm in diameter).
2. Over the medial aspect of the fifth toe, and
3. Over the lateral aspect of the fourth toe (the kissing ulcers, each about 8 mm in diameter).
4. Over the medial aspect of the proximal interphalangeal joint of the great toe (7 mm in diameter).

There was decreased vibratory sense in both feet.

Although the patient did not know she had diabetes mellitus and her urine did not contain sugar, she had a diabetic glucose tolerance curve with a two-hour glucose level of 324 mg/100 cc.

On March 1, 1967, a femoral arteriogram was performed. The films showed a patent, but sclerotic and narrowed, right superficial femoral artery with occlusion of all three popliteal branches at the level of the popliteal trifurcation. The patient was treated with bed rest and repeated cleansing of the ulcers. However, the ulcers did not change and the pain in the right foot increased.

On April 5, 1967, a right femoral to popliteal by-pass graft, using a reversed saphenous vein segment, was inserted. The postoperative course was smooth. The graft remained patent, but the pain was not alleviated and the ulcers persisted.

On May 17, 1967, a femoral arteriogram again was performed. These films showed a patent graft, infrapopliteal occlusion of all three major calf arteries and a patent dorsalis pedis artery at the ankle. On March 24, 1967, a right popliteal to dorsalis pedis artery by-pass graft, using a reversed saphenous vein, was performed. The distal end-to-side anastomosis was performed first, using #8-0 monofilament nylon sutures. The graft then was tunneled by the side of the dorsalis pedis artery beneath the transverse ligament at the ankle and into the anterior tibial compartment. The graft then was brought through the interosseous membrane and into the popliteal space. The upper end-to-side anastomosis to the popliteal artery was then performed using #6-0 Tevdek sutures.

A strong dorsalis pedis pulse was palpable immediately postoperatively and has remained palpable since. The rest pain was relieved immediately and the foot became warm, pink and mildly edematous. The ulcers all healed within four weeks and no recurrence has occurred. The edema of the foot disappeared about two months postoperatively. Arteriograms obtained two weeks postoperatively showed the graft to be patent and with a marked increase in arterial supply to the foot (Fig. 1).

The patient has returned to her regular occupation and has experienced no difficulties with walking. Her dorsales pedis pulse has remained strong for the 22 months since operation.

Case # 2. A 64-year-old man noted claudication in his right calf for about five years. Walking tolerance slowly and progressively shortened until he was able to walk only about one-half to one block by the time of his admission. Three weeks prior to his admission to the Jewish Hospital of St. Louis, on Oct. 28, 1967, he developed an ingrown toenail on his right great toe. He treated himself at home with various salves and ointments to no avail. His right foot and toes became edematous, his nail became infected and he developed gangrene of the distal phalanx of his right great toe.

On examination, he had strong femoral pulses bilaterally, but no pulses palpable distal to the femorals. There was no sensory deficit on neurological examination. Laboratory data included a diabetic type glucose tolerance test with a two-hour blood sugar of 190 mg/100 cc, although the patient was not aware that he had diabetes.

On Nov. 14, 1967, a femoral arteriogram was performed. It showed a patent right femoral artery with occlusion of the popliteal artery in its proximal portion with no infrapopliteal vessels visualized. The dorsalis pedis artery was patent at the ankle.

On Nov. 17, 1967, a right popliteal to dorsalis pedis artery by-pass graft was performed using a reversed saphenous vein removed from the right calf. The distal end-to-side anastomosis was performed first, using #8-0 monofilament nylon sutures. The graft then was brought medially, anterior to the medial malleolus in the subcutaneous tissue in the plane from which the saphenous vein had been removed. In the mid-calf, it was brought through the crural fascia, passed deep to the medial head of the gastrocnemius muscle and into the popliteal space. It then was brought superior to the knee and anastomosed end-to-side to the proximal popliteal artery using #6-0 Tevdek sutures. Post-

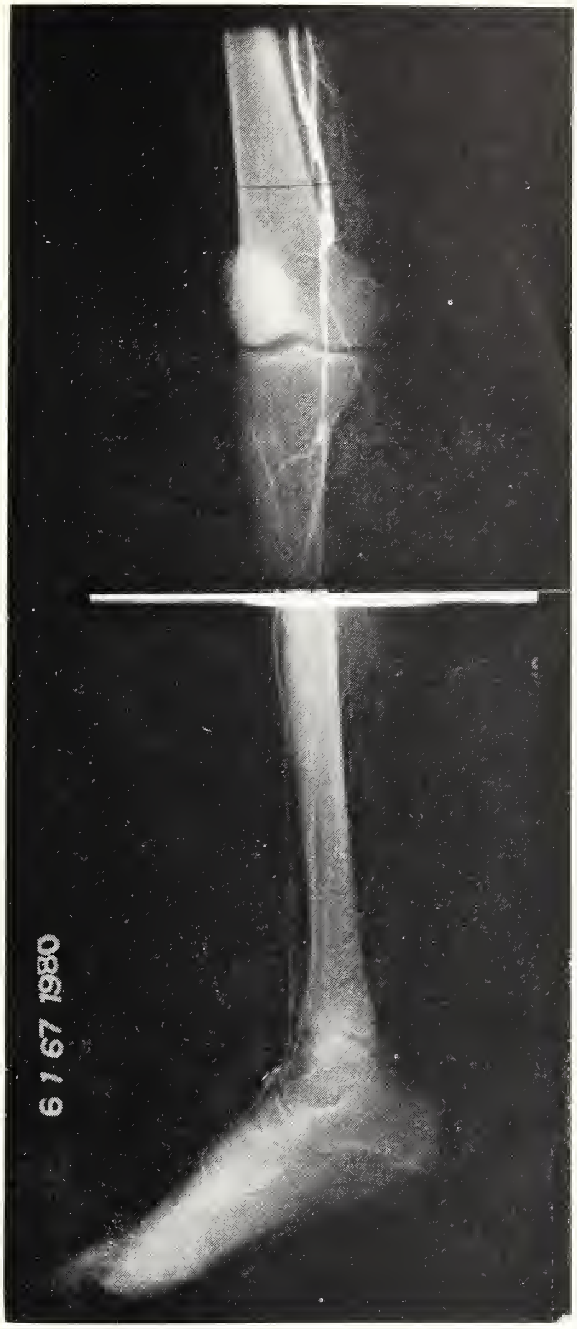

Fig. 1 Case # 1. Patent saphenous vein graft from distal popliteal artery to dorsalis pedis artery. Metal clips show exact sites of anastomoses. Arteriogram taken two weeks post-operation.

operatively, the foot became erythematous, warm and, obviously, revascularized. A strong dorsalis pedis pulse was palpable and has remained palpable to this time.

On Dec. 6, 1967, the gangrenous distal phalanx of the right great toe was amputated. Wound healing was prompt. A postoperative arteriogram performed on November 30 showed a patent graft (Fig. 2).

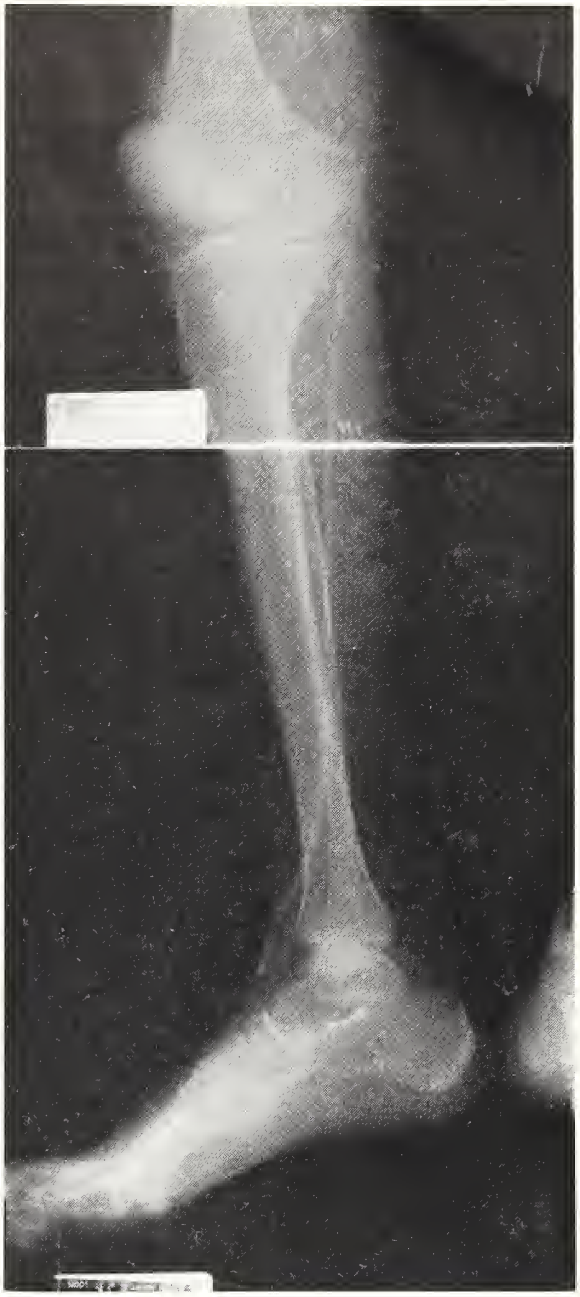

Fig. 2 Case # 2. Patent saphenous vein graft from proximal popliteal artery to dorsalis pedis artery. Arteriogram taken two weeks post-operation.

Three months postoperatively the patient had an episode of myocardial ischemia requiring hospitalization. At that time, the patient had no difficulty with his foot; he was walking and had no pain. His dorsalis pedis pulse was strong. He has remained free of foot difficulty since, although he has limitation of walking distances due to angina pectoris.

DISCUSSION

The development of techniques for direct arterial surgery upon vessels in the range of 1 mm to 2 mm in diameter has opened the possibility of limb salvage to an entirely new group of patients. The major group of patients with severe arterial insufficiency who previously have not been treatable by direct arterial surgery have been those with infrapopliteal occlusions; diabetics are frequent in this group. As illustrated by these cases, such patients now may be considered candidates for direct arterial surgery with a significant expectation of limb salvage. Diabetes per se is not a contraindication to infrapopliteal by-pass procedures.

The dorsalis pedis artery frequently has been found to be patent in patients with infrapopliteal occlusions. Its superficial position makes it a readily accessible vessel requiring minimal dissection for exposure. It is easier technically to expose than the anterior tibial artery above the ankle. Most importantly, the dorsalis pedis artery alone will support a saphenous vein by-pass graft well.

Vein grafts from the popliteal artery to the dorsalis artery may be tunneled through either the anterior muscle compartment and beneath the transverse ligament at the ankle (following the normal course of the anterior tibial artery) or may be brought medially in a subcutaneous position following the course of the saphenous vein. It can be expected that either technique will be followed by a successful graft and salvage of the limb.

An obvious requisite for infrapopliteal grafting procedures is adequate arteriography revealing the vessels of this area. Because grafting below the popliteal trifurcation is a feasible technique, routine arteriography for a peripheral arterial occlusive disease must include not only the area from the bifurcation of the aorta to the popliteal trifurcation but, also, down to and including the foot. It is our custom to perform arteriograms with the foot completely inverted and completely everted, as well as in the straight AP position of the foot, in order to visualize the vessels at the level of the ankle thoroughly. Only with such complete arteriography can a proper evaluation of the vessels of this area be made.

SUMMARY

Case reports of two patients with successful popliteal to dorsalis pedis artery by-pass grafts are presented. These grafts resulted in limb salvage in both cases. The technique of grafting in these two patients is presented, each representing a different approach to the use of the dorsalis pedis artery. The need for distal arteriography as a requisite for adequate evaluation of peripheral arterial occlusive disease is stressed.

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Members of the MSMA are invited to attend the 3rd National Congress on The Socio-Economics of Health Care which will be held on March 28-29 at The Palmer House in Chicago.

Sponsored by the Council on Medical Service and the Division of Health Service of the AMA, the Congress will have as its theme *Major Issues in Health Care: The Challenge to Medicine.*

Purpose of the meeting is to signify the medical profession's ongoing concern for the effective organization, delivery and financing of health care services and to bring together authorities from medicine, health care administration, social science, education, community planning and other disciplines to report on new issues and techniques in this area.

There is no registration fee, but preregistration is requested. Write to the American Medical Association, 535 N. Dearborn St., Chicago, Ill. 60610.

ARTHUR E. BAUE, M.D., ***St. Louis***

Mediastinoscopy in the Diagnosis of Pulmonary Disease

The author reports on three years' experience using mediastinoscopy as the method of exploration and biopsy in the superior mediastinum, particularly in the diagnosis of pulmonary diseases which otherwise could only be diagnosed histologically by a thoracotomy. The procedure also has proved valuable in the diagnosis of sarcoid and in the histologic confirmation of malignancy of the lung which involves the mediastinum. He describes specific indications in selected patients who are candidates for the procedure. Dr. Baue is from Washington University School of Medicine, where he is the Edison Professor of Surgery, and the Department of Surgery, Jewish Hospital of St. Louis.

MEDIASTINOSCOPY is a method of exploration and biopsy in the superior mediastinum which was developed by Eric Carlens[1] at the Karolinska Sjukhuset, Stockholm, and reported by him in 1959. It has since been used extensively in Scandinavia as an extension of scalene node biopsy, but it has not been as enthusiastically received in this country. Pearson introduced the procedure here in 1963.[2] This technique is particularly useful in the diagnosis of those pulmonary diseases which otherwise could only be diagnosed histologically by a thoracotomy. During three years of experience with this procedure, we have been impressed by its usefulness, particularly in the diagnosis of sarcoid and in the histologic confirmation of malignancy of the lung which involves, or has extended to, the mediastinum and, therefore, is unresectable or incurable by presently available surgical techniques. A thoracotomy is then unnecessary.

We have not used the procedure routinely in patients with thoracic disease but, rather, have recommended it for selected cases with quite specific indications. These include the following:

(a) Patients with pulmonary disease which has hilar or mediastinal lymphadenopathy as a primary problem and when an etiologic diagnosis cannot be made other than by scalene node biopsy or thoracotomy.

(b) Patients with seemingly inoperable carcinoma of the lung when a tissue diagnosis cannot be obtained by bronchoscopy.

(c) Elderly patients or those with diminished pulmonary function when thoracotomy for diagnosis may be hazardous.

(d) Patients with probable carcinoma of the lung and widening of the mediastinum or carina.

Although this technique may be helpful in determining the extent of a lesion at the trachea and the resectability of a carcinoma of the lung, it is not a screening test for all cases of carcinoma of the lung because too frequently it will be negative with peripheral pulmonary lesions.

METHODS

General anesthesia is preferred for this procedure due to coughing and discomfort caused by manipulation and pressure on the trachea. An endotracheal tube is inserted. A nonexplosive anesthetic agent is preferable so that electrocautery can be used for hemostasis if necessary. A short, transverse incision is made in the suprasternal notch at a location one and a half to two fingerbreadths above the manubrium. This incision is the same as the medial portion of a thyroid incision. The skin incision is extended through the platysma muscle in a transverse direction, exposing the sternothyroid and sternohyoid muscles, which are separated in the midline. The inferior thyroid vein may be encountered and can be ligated and divided. The anterior wall of the trachea is exposed at a location several rings below the thyroid cartilage. If the thyroid gland is enlarged or the thyroid isthmus extends inferiorly, it can be retracted upward to expose the trachea or the dissection can be extended below the gland. The pretracheal fascial plane is entered and, by blunt dissection with the finger, a space is developed within the mediastinum on the anterior wall of the trachea down to the carina and the tracheal bifurcation into right and left main bronchi. This is shown in Fig. 1. The carina can be reached and palpated in most patients. In some, both the left and right primary bronchi and the right upper lobe bronchus can be palpated as well. The esophagus also can be palpated behind the trachea, even though it is not exposed. Nodes along the trachea and lesions within the lung along the mediastinum on the left or right side and around the superior vena cava also can be palpated and exposed by blunt dissection for biopsy. The great vessels in the chest are palpated anteriorly. The plane of dissection is well behind the left innominate vein, which comes across to join the vessel on the right side and form the superior vena cava. The aortic arch also is above and can be felt easily as the dissection extends below the level of the superior surface of the aortic arch. At the lowest portion of the blind dissection are the left atrium and the pulmonary artery.

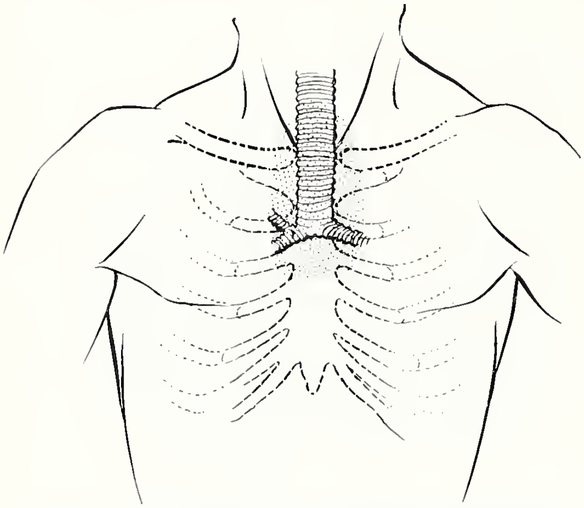

Fig. 1 The stippled area of the mediastinum can be explored safely and biopsies taken by this technique.

Following the development of this plane by gentle dissection, a mediastinoscope is used for visualization. The instrument, which is a modified laryngoscope, is inserted into the plane of dissection and, with direct vision, is passed down into the mediastinum. Through the mediastinoscope, it is possible to visualize the anterior wall of the trachea, the carina and the major left and right bronchi, along with lesions in the vicinity. Further gentle dissection can be carried out through the mediastinoscope, using several instruments, to expose masses or lymph nodes for biopsy (Fig. 2).

Needless to say, caution must be taken in such dissection, and a structure must not be biopsied unless its identity has been determined. Doubt concerning a structure can be resolved before biopsy by needle aspiration. A number 18 or 20 long spinal needle on a syringe can be used for this purpose.[2] If this is done before biopsy of any questionable structure, the pulmonary artery, the left atrium and the posterior surface of the aortic arch will be avoided. Dissection and biopsy of lymph nodes may lead to a small amount of bleeding. This usually is not troublesome and stops spontaneously within a short time. Electrocautery on a metal suction catheter may be helpful and can be carried out easily through the mediastinoscope. Packing to control bleeding in the mediastinum is not recommended since it may produce further dissection and tearing of vessels, particularly those of the bronchial arteries from the posterior wall of the aorta. Experience increases one's boldness in the dissection, particularly in exposure of the lymph nodes. The lymph nodes at the carina are surrounded by fascia and may not be seen until this compartment is opened by blunt dissection. Lesions palpated along the lateral walls of the mediastinum also can be safely exposed, visualized and biopsied. It is preferable to expose and identify with certainty the wall of such a structure before attempting biopsy. This will prevent inadvertent biopsy of the

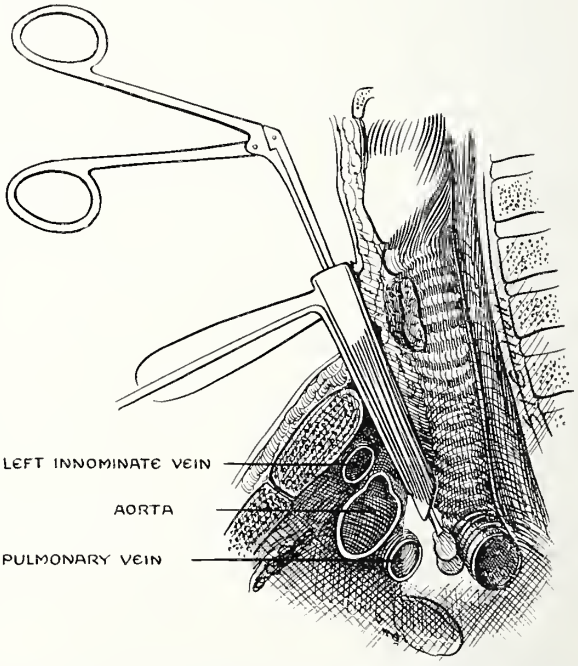

Fig. 2 The modified laryngoscope is in place behind the great vessels and carinal nodes are biopsied.

superior vena cava, the innominate artery or the left carotid artery, all of which are in this region.

Although complications should not be encountered if proper care is exercised, it generally is best to be prepared to open the chest if a complication does arise and, also, to give blood by intravenous transfusion if blood loss should become apparent. Following biopsy and control or cessation of any bleeding which might occur, the mediastinoscope is removed, the strap muscles are reapproximated loosely in the midline and the platysma muscle is closed transversely, as is the skin, with fine sutures. No drains are left in the neck unless there is more blood loss than should be present. Sometimes, in such a situation, a drain may be left. However, this has not been our practice. We have insisted upon hemostasis before closing the wound. A small dressing is applied, and the patient is allowed to awaken. If no further hospital care is necessary, the patient can be discharged on the morning following this procedure without concern. The sutures are removed at three to four days. The only discomfort for the patient is some soreness of the throat, which usually subsides in 24 hours.

Results

Results of mediastinoscopy in chronological order of experience with the procedure are shown in Table 1.

TABLE 1

RESULTS OF MEDIASTINOSCOPY IN CHRONOLOGICAL ORDER OF EXPERIENCE WITH THE PROCEDURE

Patient	Preoperative Diagnosis	Diagnosis by Mediastinoscopy
#1	? pneumoconiosis	negative mediastinoscopy, normal nodes
#2	mediastinal mass	neurofibroma
#3	probable carcinoma of the lung	negative mediastinoscopy
#4	carcinoma of the lung	squamous cell carcinoma—unresectable (thoracotomy avoided)
#5	carcinoma, left upper lobe	negative lymph nodes, tumor unresectable by palpation (thoracotomy avoided)
#6	carcinoma of the lung peripheral lesion	negative mediastinoscopy
#7	carcinoma of the lung	negative lymph nodes, tumor unresectable by palpation (thoracotomy avoided)
#8	sarcoid	sarcoid
#9	carcinoma of the lung	negative lymph nodes, tumor unresectable by palpation (thoracotomy avoided)
#10	? tuberculosis hilar adenopathy	tuberculosis
#11	sarcoid	sarcoid
#12	peripheral carcinoma of the lung	negative mediastinoscopy
#13	carcinoma of the lung	undifferentiated carcinoma of the lung (thoracotomy avoided)
#14	sarcoid	sarcoid
#15	hilar and mediastinal lymphadenopathy	tuberculosis
#16	sarcoid	sarcoid
#17	sarcoid	sarcoid
#18	carcinoma of the lung	oat cell carcinoma involving mediastinum (thoracotomy avoided)
#19	? tuberculosis	tuberculosis
#20	carcinoma of the lung	carcinoma (thoracotomy avoided)
#21	carcinoma of the lung	undifferentiated carcinoma (thoracotomy avoided)
#22	? carcinoma of the lung	mesothelioma involving the mediastinum (thoracotomy avoided)
#23	sarcoid	sarcoid
#24	sarcoid	sarcoid
#25	mediastinal lymphadenopathy	tuberculoma
#26	sarcoid	sarcoid
#27	carcinoma of the lung	anaplastic carcinoma (thoracotomy avoided)
#28	? carcinoma, left upper lobe	squamous cell carcinoma—left upper lobe (thoracotomy avoided)
#29	carcinoma of the lung	squamous cell carcinoma of the lung (thoracotomy avoided)
#30	? pneumoconiosis	pneumoconiosis

A cytologic diagnosis of the primary disease process was obtained in 24 of the 30 patients. In six patients for whom a cytologic diagnosis was not obtained, the biopsies of the mediastinal lymph nodes showed only normal or hyperplastic nodes. However, in three of these patients, who were thought to have carcinoma of the lung by chest x-ray, the tumor could be palpated beneath the aortic arch. Because of its location, the lesion was found to be unresectable for cure. Therefore, even though a cytologic diagnosis was not obtained in these patients, the necessary decision for or against a thoracotomy could be made by mediastinoscopy. This left three patients in which the mediastinoscopy did not help in the diagnosis or in the treatment program. Two of these patients had carcinomas of the lung which were peripheral lesions. At the present time, unless there is evidence of mediastinal widening by bronchoscopy or by chest x-ray, these patients would not be considered candidates for mediastinoscopy. The third patient was suspected of having a pneumoconiosis following industrial exposure to toxic materials, but mediastinoscopy showed only normal lymph nodes. This patient would not be a candidate now for mediastinoscopy, but would preferably have an intercostal pulmonary biopsy. Only two patients in this group were thought to have pneumoconiosis, and the diagnosis was confirmed by lymph node biopsy in the mediastinum in one but not the other.

Two complications were encountered in the first several cases. One was due in part to an error in communication. During mediastinoscopy, it was discovered that cyclopropane was being used inadvertently as the anesthetic agent instead of a nonexplosive anesthetic. Electrocautery could not be used for the slight bleeding from a lymph node which had been biopsied at the carina. A vaginal pack was inserted to control the bleeding. This produced further dissection, tore the left bronchial artery from the back wall of the aortic arch and necessitated division of the sternum down to the third interspace to expose the region and control the bleeding. Several blood transfusions were given, after which the patient did well.

In another case, a lesion of the left main bronchus extended upward in the superior mediastinum and around the innominate and subclavian arteries. The tumor mass was exposed by mediastinoscopy, and a biopsy was taken which, consequently, entered the innominate artery that was imbedded in the tumor. This was easily controlled by suturing the biopsy incision in the artery. This again stresses the necessity of exposing a region of tumor anywhere in the mediastinum before a biopsy is taken. If there is any question about location of the lesion, aspiration of the region should be done to preclude the possibility of a vascular conduit being within a mass of tumor, as occurred in this situation. The complications in other series have been comparable and have been limited primarily to controllable bleeding and an occasional pneumothorax.[1-5] The complications rate with this procedure compares quite favorably with the 6% incidence of serious complications or death with scalene node biopsy.[6]

On the evening following mediastinoscopy, the patient has some soreness of the neck and throat but usually can eat and drink quite adequately and does not require intravenous fluid. In most cases, medication has consisted only of aspirin or Darvon. On the following morning, the patient usually is quite comfortable, experiences only slight residual soreness and can be discharged from the hospital. Patients have described the procedure as being no more uncomfortable than bronchoscopy.

Flynn and his group[3] did both a scalene node biopsy and mediastinoscopy in a number of patients, and in no patient were there positive scalene nodes *and* a negative mediastinoscopy. Reynders[5] reported that the percentage of nonresectable lung cancers encountered at exploratory thoracotomy was reduced from 40% to 10% by using mediastinoscopy for preoperative evaluation. He recommends mediastinoscopy for central lesions on x-ray; diffuse, poorly demarcated lesions or atelectasis by x-ray; oat cell carcinoma; and dubiously operable patients.

Discussion

It is helpful to consider these results in terms of the following four principal groups of patients with specific indications for mediastinoscopy:

(a) Patients with pulmonary disease and hilar or mediastinal lymphadenopathy as a primary problem in which an etiologic diagnosis could not be made other than by scalene node biopsy or thoracotomy.

There were 15 patients in this group. Eight young patients were thought to have sarcoid because of systemic complaints and/or findings of mediastinal and hilar lymphadenopathy by chest x-ray. Mediastinoscopy provided histologic confirmation of the diagnosis of sarcoid in all of them (100%). Obviously, the diagnosis of sarcoid is partially that of exclusion and by observation of non-caseating fibro-epithelioid and giant cell granulomas of lymph nodes, both of which are compatible with the diagnosis of sarcoid. In four patients suspected of having either tuberculosis or sarcoid because of age, symptoms, exposure to the disease and hilar or mediastinal lymphadenopathy, but with negative sputums, the diagnosis of tuberculosis was made from lymph node biopsy. Of the three other patients in this group, two were those with suspected pneumoconiosis, as previously described. The diagnosis was confirmed by the lymph node biopsy in one but not in the other. The third patient, a young girl, had a large mass in the right mediastinum which, by biopsy, was found to be a neurofibroma.

(b, e, d) Patients with carcinoma of the lung.

Fifteen patients were thought to have carcinoma by chest x-ray and by history prior to mediastinoscopy. In this group, a histologic diagnosis from the lymph node biopsy or biopsy of the primary tumor mass within the mediastinum was made in ten cases. There was a frequency of 66⅔% positive biopsies. Table 1, in which cases are listed in order of performance, shows that the negative biopsies were primarily in the early cases. With greater experience in the procedure, the number of positive biopsies is higher. It also is evident that in patients with peripheral lesions of the lung and no suspicion of involvement of the mediastinum, mediastinoscopy often will be negative. At the present time, mediastinoscopy would not be recommended for a patient with a peripheral lesion of the lung, a normal bronchoscopy or no suggestion of hilar of mediastinal lymphadenopathy, no matter what the clinical status of the patient. However, a lesion which encroaches on the superior mediastinum may be biopsied directly through the mediastinoscope, as has been done in several cases in this series, providing a histologic diagnosis. Most of the positive diagnoses of carcinoma were squamous cell lesions—a number were undifferentiated and some were of the oat cell type. No bronchial adenomas or adenocarcinomas were encountered. Because of these results and the results of others, we feel that mediastinoscopy should not be a routine procedure for patients with suspected carcinoma of the lung. It should be used only with specific indications and for selected patients, such as when carcinoma of the lung is suspected but, for various reasons such as involvement of the recurrent laryngeal nerve, the phrenic nerve, the pulmonary artery or the carina, is believed to be inoperable and a tissue diagnosis cannot be obtained by bronchoscopy. If radiation therapy is to be considered, histologic confirmation is the wiser course before it is initiated. Secondly, in elderly patients or those with diminished pulmonary function for whom thoracotomy, even for diagnosis, may be an extremely hazardous procedure with a significant morbidity and mortality, mediastinoscopy can be carried out with little risk and may yield a histologic diagnosis. Also, if the lesion is medial and extends toward the carina or there is mediastinal widening and a question of resectability, mediastinoscopy may help to delineate the problem. This can be done just before a planned thoracotomy and, therefore, would not require a second general anesthetic. The patient can be anesthetized with mediastinoscopy planned. By palpation, the extent of the lesion may be determined. Biopsy of carinal nodes can be performed and a frozen section examination obtained. If these are negative and the lesion has not extended to the trachea, the neck incision can be closed and a formal thoracotomy with resection can be carried out.

Summary

Mediastinoscopy has been found to be quite valuable in the diagnosis of pulmonary disease. Cytologic diagnoses were obtained in 24 of 30 patients having this procedure. Sarcoid, tuberculosis, carcinoma of the lung and silicosis were diagnosed in this way. In all patients suspected of having sarcoid, the diagnosis was confirmed by mediastinal biopsy. This procedure is superior to scalene node biopsy, for which the incidence of positive biopsy has been less than 100%.[4, 6] When carinal nodes were negative for tumor, palpation of the trachea, carina and main bronchi was helpful in determining the resectability of centrally placed pulmonary carcinomas. It was evident that the procedure was not necessary as a routine or screening device, but was helpful for specific indications and in selected patients. These included (a) patients with pulmonary disease and hilar or mediastinal lymphadenopathy as a primary problem in whom an etiologic diagnosis could not be made other than by scalene node biopsy or thoracotomy, (b) in cases of carcinoma of the lung which are inoperable by their extensiveness and a tissue diagnosis cannot be obtained by bron-

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M. WENDELL DIETZ, M.D., ***Springfield***

Retrograde Gastroesophageal Mucosal Prolapse: Sole Manifestation of Stomach Carcinoma

Case Report

ANALYSES OF ACCURACY in the roentgen investigation of carcinoma of the cardiac region of the stomach emphasize errors in detection.[1, 2] The notoriety of these neoplasms has been enhanced by discovery of a statistical linkage to both hiatal hernia and achalasia.[3, 4] Errors of omission are not wholly accountable for the misdiagnosis of this enigmatic entity, however. Numerous mimicking pseudotumors have been ascribed to normal tissues as well as to benign abnormalities.[5–7]

In addition to the phenomena of the undemonstrable cardiac end tumor and the illusory cancer-like defect, a third source of diagnostic dilemma is presented in the following report. A similar circumstance has not been located in a review of the 14 cases of retrograde prolapse of gastric mucosa heretofore described.

CASE REPORT

A 42-year-old white man, an insurance agent, was hospitalized for the first time on Nov. 18, 1963. He complained of nervousness, epigastralgia and painful hemorrhoids with occasional bleeding. A family history of coronary artery disease was elicited.

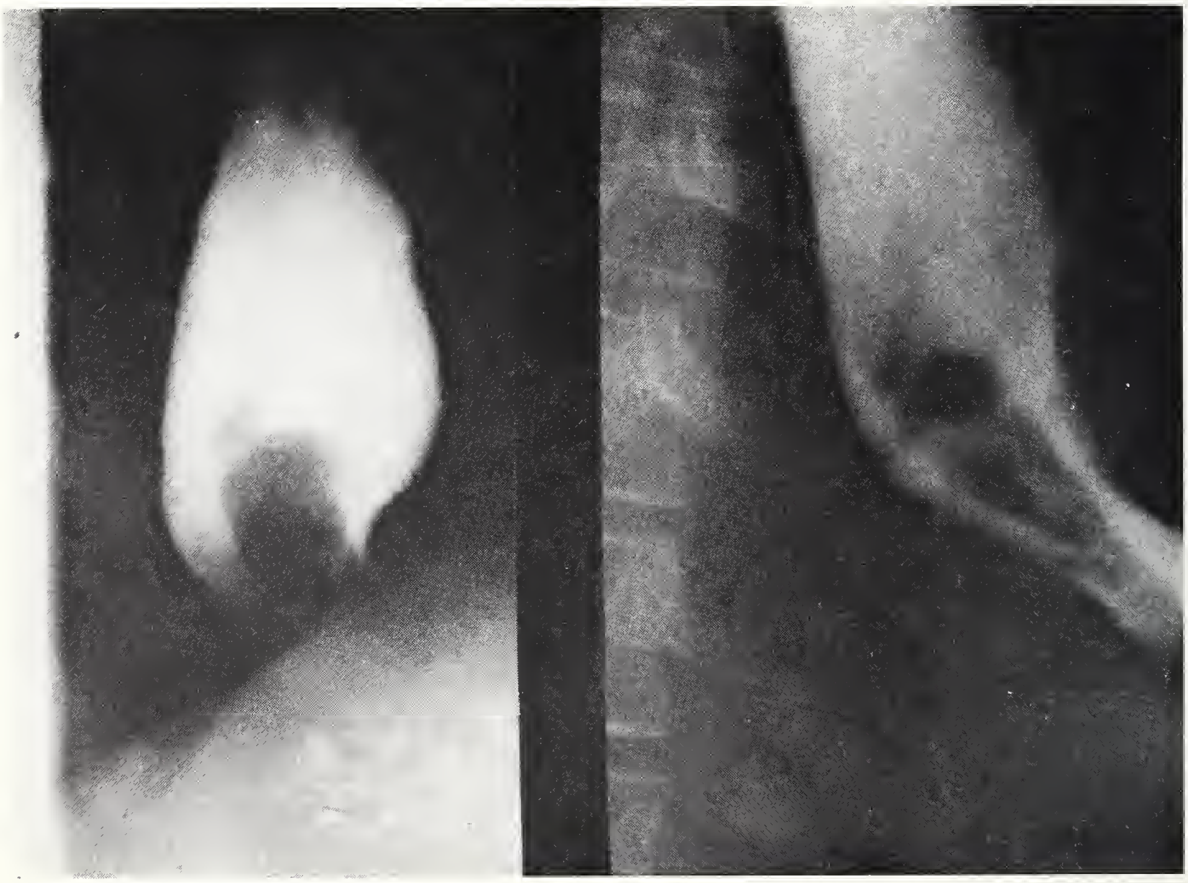

Fig. 1 Initial esophagram demonstrating retrograde gastroesophageal mucosal prolapse.

An initial gastrointestinal study revealed an inconstant intraesophageal filling defect suggestive of a single markedly hypertrophied gastric ruga (Fig. 1). A hiatal hernia was diligently sought, but was not demonstrable. The base of the duodenal bulb was indented in a mushroom-like manner by prolapsing redundant antral mucosa. The diagnosis of retrograde gastric mucosal prolapse and transpyloric antral mucosal prolapse were made. Esophagoscopy was recommended, but not performed.

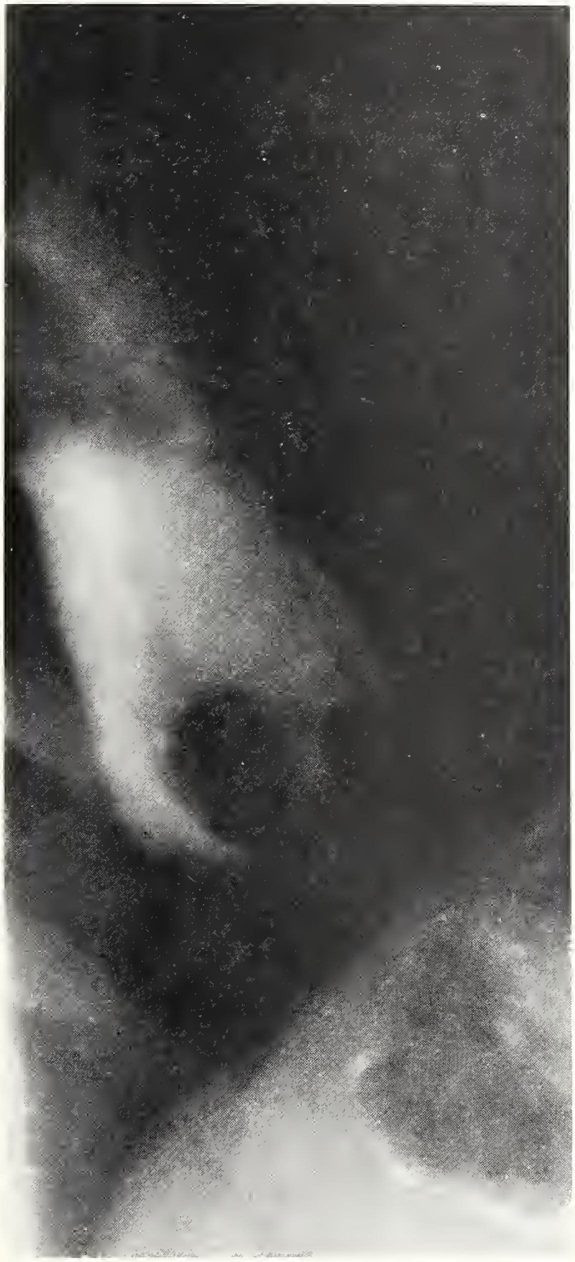

Fig. 2 Third barium meal study after a 16-month interval. Multiple polypoid intraesophageal defects are visible.

A review by the author of the 14 reported cases of retrograde prolapse of gastric mucosa did not reveal a circumstance similar to that described in the case report he presents here. In addition to the phenomena of the undemonstrable cardiac end tumor and the illusory cancer-like defect, he describes "a third source of diagnostic dilemma" attributable to prolapsing and malignant rugae. Dr. Dietz is Director, Department of Diagnostic Radiology, Burge-Protestant Hospital and Clinical Associate Professor of Radiology, University of Missouri School of Medicine—Columbia.

The patient was hospitalized for a second time on Feb. 6, 1964 because of lower sternal pain and tenderness to palpation. An electrocardiogram revealed anterior myocardial ischemia; a Master's test was positive.

Reexamination of the stomach confirmed the presence of both the retrograde mucosal prolapse and, also, the prograde antral prolapse. The fluoroscopist again reported witnessing spontaneous reduction of the esophageal mucosal plug into the proximal stomach.

Barium studies were not performed during a third admission on May 18, 1964 for investigation of vague musculoskeletal pains, particularly in the forearms. Physical examination was negative; electrocardiographic findings were unchanged. Cervico-thoracic spinal x-rays were negative.

On March 28, 1965, the patient was readmitted for a general check-up. An electrocardiogram indicated that the myocardial abnormalities were less marked upon comparison with prior tracings.

A third gastrointestinal study again revealed transient prolapsing gastric rugae (Fig. 2). On this occasion, however, the fluoroscopist described at least two intraesophageal polyp-like filling defects. These did not interfere with esophageal emptying. Neither a hiatal hernia nor a gastric abnormality was identified.

In view of the multiple, polypoid characteristics of the intraesophageal herniated folds, esophagoscopy again was recommended. The esophagoscopist reported several erythematous, hypertrophied gastric rugae within the distal esophagus. The latter was dilated. Smears from the area revealed no cancer cells.

The patient was next hospitalized 18 months later on Oct. 8, 1966. He now complained of an increasing amount of dysphagia with a constant feeling of tightness across the lower chest. He had been on a regime of anticoagulants and vasodilators for chronic coronary artery disease for some time. An electrocardiogram showed less pronounced evidence of myocardial ischemia.

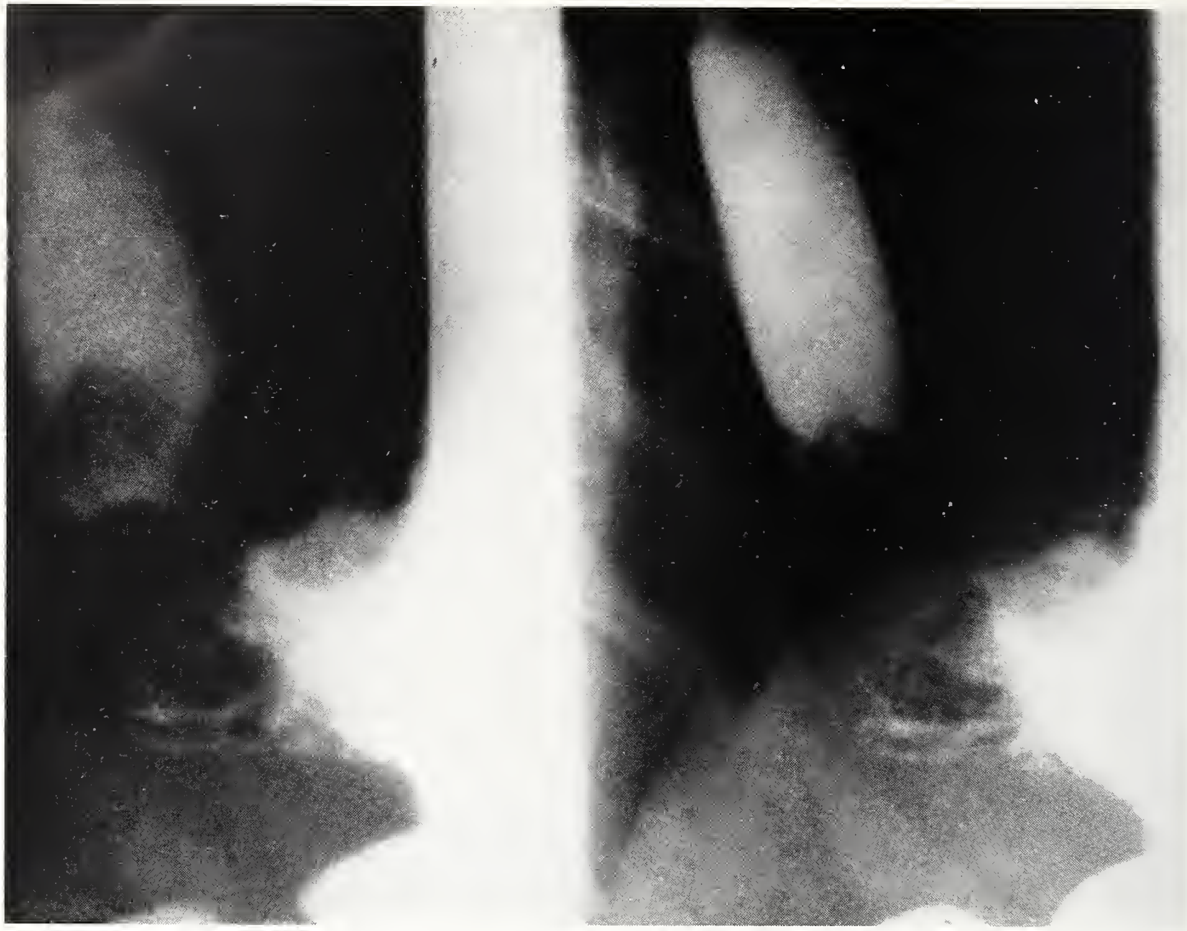

Fig. 3 Fourth gastrointestinal examination performed three years after initial study. Gastric rugae at cardiac aspect appear suspiciously nodular. Prolapsing intraesophageal rugae are unchanged.

A fourth barium meal study revealed that the distal esophagus was unremarkable when the patient was erect. Hypertrophied mucosal folds appeared within the lower esophagus when the patient was supine (Fig. 3). These elongated and moved distally with esophageal contraction and emptying. A definite suggestion of irregularity of the prolapsed folds and of nodularity of the rugae within the cardiac aspect of the stomach was observed for the first time. Despite reducibility of the herniated folds and absence of esophageal obstructive manifestations, esophagoscopy was once more strongly recommended. The extent of dysphagia described by the patient appeared disproportionate to the largely unchanged roentgen pattern.

A second esophagoscopic examination disclosed hypertrophied gastric mucosa bulging into the esophagus from the left and partially occluding its lumen. The esophagoscopist concluded that the prolapsing rugae were not neoplastic. Biopsy studies were deferred because of a prolonged prothrombin time secondary to anticoagulant therapy. Smears were negative for cancer cells. The patient agreed to return for an exploratory thoracotomy on Oct. 24, 1966 after discontinuance of anticoagulants.

A thoracotomy at this time revealed a hard mass within the inferior esophagus extending into the abdominal cavity. After opening the diaphragm, palpation disclosed a tumor involving the gastric fundus, the esophagogastric junction and the lesser curvature body of the stomach. Resection of the distal third of the esophagus and the upper half of the stomach was performed.

Histological examination of this specimen demonstrated an ulcerating, poorly differentiated gastric adenocarcinoma with widespread infiltration of the stomach and distal esophageal musculature with metastases to mesenteric lymph nodes. An ulcer measuring 1.5 cm in diameter was found at the esophagogastric mucosal junction. At this level, the tumor extended throughout the thickness of the stomach wall.

Discussion

Ironically, the film study of March 29, 1965 was selected from a collection of cases of retrograde herniation of gastric mucosa for lecture purposes because of several factors: Three examinations during a 16-month interval yielded essentially identical findings; esophagoscopic and cytological studies were confirmatory; symptoms were essentially unchanged; and, finally, the accompanying syndrome of transpyloric prolapse of antral rugae was regarded as a related manifestation of mucosal hypermobility at another gastric orifice.

If the migratory gastric mucosa indeed was malignant from the onset, a series of curious idiosyncracies of this disease deserve retrospection: the neoplasm must have occurred at quite an early age. Roentgen signs and symptomatology remained unexpectedly stable during a three-year period. The ineffectuality of multiple radiologic and endoscopic investigations is challenging. Prolapsibility of gastric mucosa implies benignity—rugal fixation may be anticipated in neoplastic infiltration.

Since the initial description of transhiatal gastric herniation by Wells in 1947, the necessity for exclusion of a cardioesophageal carcinoma has been reasserted in each report of this uncommon condition.[8-13] Nevertheless, not a single instance of neoplasm manifest by prolapsing rugae has been recorded. Clinical syndromes attributed to herniated gastric mucosa include esophageal obstruction, bleeding, dysphagia, regurgitation, substernal and epigastric pain and nausea and vomiting.

Summary

Carcinoma of the gastric fundus may be manifest roentgenologically wholly by the signs of retrograde prolapse of gastric mucosa.

Repeated roentgen and endoscopic examinations failed to disclose the correct diagnosis in the first case of this type to be reported.

The potentiality of a concomitant neoplasm must constitute a paramount diagnostic factor in the investigation of retrograde gastric mucosal migration.

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Diagnosis of Pulmonary Disease

(Continued from page 199)

choscopy, (c) in elderly patients or those with diminished pulmonary function for whom thoracotomy for diagnosis may be hazardous and (d) patients with probable carcinoma of the lung with widening of the mediastinum or carina.

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Planning Medical Care Services for Senior Citizens in a Public Housing Project

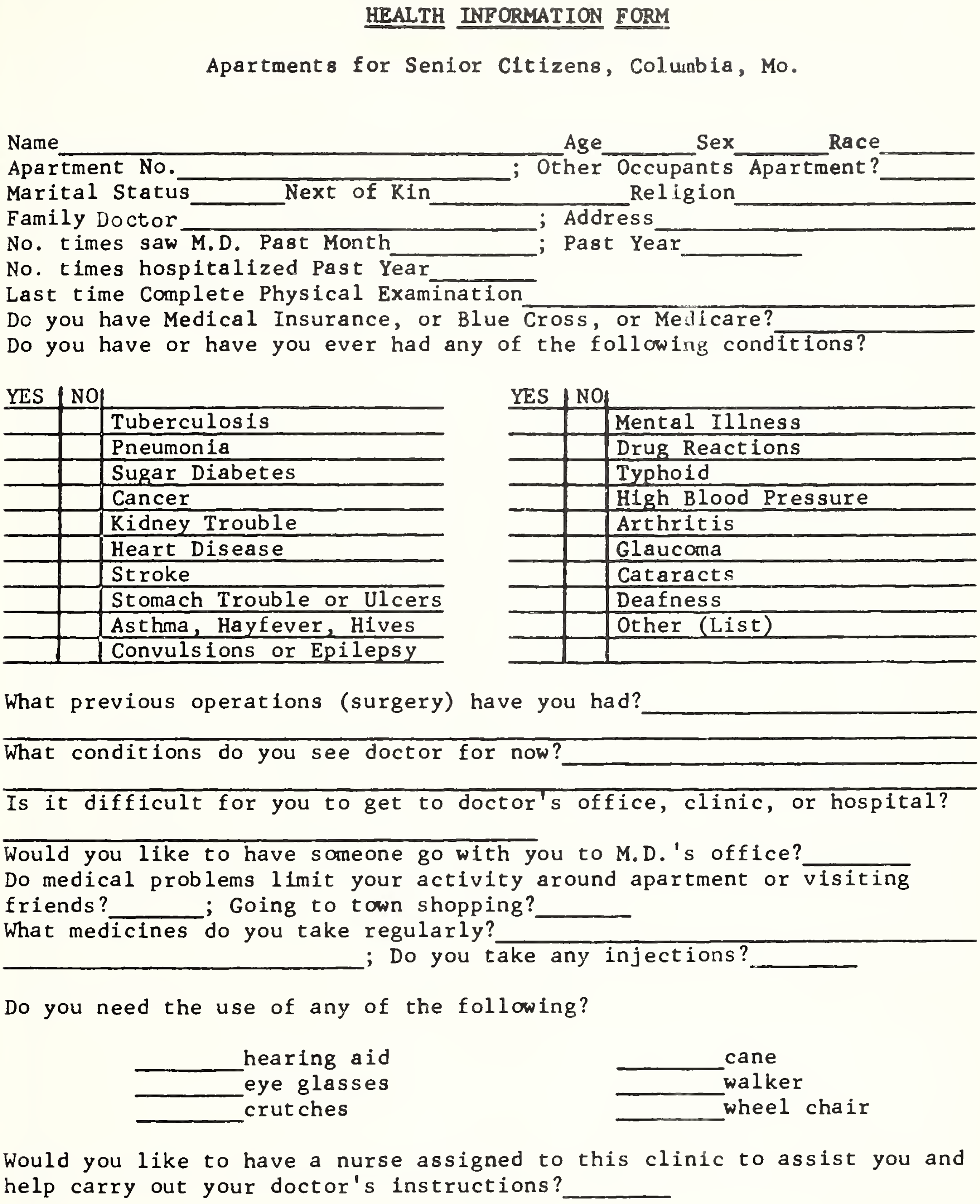
Many cities in Missouri and elsewhere are planning and constructing public housing projects. Some housing planners fail to realize that they are creating subcommunities of people with greater-than-average health problems and correspondingly greater needs for medical care services. In some instances, these facilities are built in areas isolated from hospitals, physicians' offices, health departments and other community health resources.

In order to plan medical care services for the occupants of a public housing project, it is highly desirable to have a "community diagnosis." In the past, there have been many well-meaning, but misguided, authorities who have offered medical care treatment programs without first making a diagnosis of the problem. This undesirable practice has occurred in local, state and federal health planning. It is high time that administrative research be used to analyze health facts before formulating medical care programs.[1, 2] This paper describes a survey of the health status of senior citizens in a public housing project in Columbia, Mo. and illustrates how health facts were used to plan a medical care program.

Materials and Methods

The Apartments for Senior Citizens is a project of the Housing Authority of the city of Columbia. The building consists of 147 one-or two-bedroom units (Fig. 1). It is located in a residential area of the city which is approximately 20 blocks from the nearest hospital. No physicians' offices are located in the immediate vicinity. Physical facilities for a health clinic are located on the first floor of the building and include two examining rooms, one consultation room, one bathroom, one small laboratory-storage room and a large waiting room. A condition of the construction grant was that the Department of Health of the city of Columbia contribute personnel and operating expenses for the health clinic. The Department of Community Health and Medical Practice, University of

Fig. 1 Apartments for Senior Citizens in Columbia, Mo.



HEALTH INFORMATION FORM

Apartments for Senior Citizens, Columbia, Mo.

Name ____________ Age ______ Sex ______ Race ______
Apartment No. ____________; Other Occupants Apartment? ______
Marital Status ______ Next of Kin ____________ Religion ____________
Family Doctor ____________; Address ____________
No. times saw M.D. Past Month ______; Past Year ______
No. times hospitalized Past Year ______
Last time Complete Physical Examination ____________
Do you have Medical Insurance, or Blue Cross, or Medicare? ______
Do you have or have you ever had any of the following conditions?

YES	NO		YES	NO	
		Tuberculosis			Mental Illness
		Pneumonia			Drug Reactions
		Sugar Diabetes			Typhoid
		Cancer			High Blood Pressure
		Kidney Trouble			Arthritis
		Heart Disease			Glaucoma
		Stroke			Cataracts
		Stomach Trouble or Ulcers			Deafness
		Asthma, Hayfever, Hives			Other (List)
		Convulsions or Epilepsy			

What previous operations (surgery) have you had? ____________
____
What conditions do you see doctor for now? ____________
____
Is it difficult for you to get to doctor's office, clinic, or hospital?
____
Would you like to have someone go with you to M.D.'s office? ______
Do medical problems limit your activity around apartment or visiting friends? ______; Going to town shopping? ______
What medicines do you take regularly? ____________
____________; Do you take any injections? ______

Do you need the use of any of the following?

______ hearing aid
______ eye glasses
______ crutches
______ cane
______ walker
______ wheel chair

Would you like to have a nurse assigned to this clinic to assist you and help carry out your doctor's instructions? ______

Fig. 2

Missouri School of Medicine, agreed to study the medical care needs of the occupants and make recommendations for health services. This preliminary plan was endorsed by the Boone County Medical Society.

A one-page questionnaire was designed to obtain information about the occupants of the Apartments for Senior Citizens (Fig. 2). This form included questions about basic vital statistics of the occupants, their medical problems, their patterns for obtaining physician services and some of their health practices. Also, these older people were questioned about the kinds of medical services they wanted in the building.

A list of the current occupants was obtained from the staff of the Housing Authority. Interview appointments with the tenants were arranged for July 24 and 25, 1968. These 15-minute, structured interviews were conducted by trained health personnel. Ample opportunity was provided for patients to discuss their health problems and express opinions about the kinds of health services they want and those they do not want.

Results

According to the Tenant Registry, there were 165 people living in the Apartments for Senior Citizens. Of these, 135 (82%) were interviewed. At the time, several tenants were out-of-town on vacations or other business and two people whose names were on the list had not completed moving into the building. Several other tenants were working and were not in the building. The findings in this study are based upon interviews with 135 people.

The People—Of 135 people participating in the study, 92 (68%) were women and 43 (32%) were men. The majority of tenants were white, there being only five who were non-whites, four of whom were interviewed. The relatively small percentage of non-whites can be explained by the fact that many older non-whites live with their relatives in nearby apartment buildings operated by the Housing Authority.

One of the most striking findings in this study is the age distribution of the tenants (Table 1). Only 6% of the occupants were less than 65 years of age, 94% were 65 or older, 75% were 70 or older, 47% were 75 or older and 26% were 80 or older. This is truly an older population with almost one half of its members being 75 years of age or older.

TABLE 1

AGE AND SEX DISTRIBUTION OF OCCUPANTS, APARTMENTS FOR SENIOR CITIZENS, COLUMBIA, MO., JULY 25, 1968

Age Group (Years)	*Male*	*Female*	*Total* No.	*Total* %
< 60	2	1	3	(2)
60-64	1	4	5	(4)
65-69	6	20	26	(19)
70-74	9	29	38	(28)
75-79	8	20	28	(21)
80-84	4	15	19	(14)
85-89	11	2	13	(10)
90 or more	2	1	3	(2)
Total	43	92	135	(100)

Of 135 respondents, 91 (67%) were widows or widowers, 29 (22%) were married and with a living spouse, seven (5%) were single, six (4%) were divorced and two (2%) were separated. The marital status of the occupant was closely correlated with his living pattern within the apartment building. For example, 22% lived with their spouses and 4% (five) lived with a relative other than the spouse. Of importance is the fact that 100 (74%) of these people lived alone in the building. Most of them, however, have a relative living in Columbia or Boone County.

Medical Problems—As might be expected among older persons, chronic diseases were common (Table 2). Of the 135 people, 81 (60%) had arthritis, 61 (45%) had high blood pressure, 51 (38%) had heart disease, 43 (32%) had cataracts, 41 (30%) had kidney trouble, 40 (30%) reported deafness and 37 (27%) had stomach trouble or peptic ulcers or both. Also, 37 (27%) gave a history of drug reactions, 16 were diabet-

TABLE 2

DISEASES THAT 135 OCCUPANTS OF APARTMENTS FOR SENIOR CITIZENS IN COLUMBIA, MO., REPORTED THEY EITHER HAVE NOW OR HAD IN THE PAST

Disease or Health Condition	*Occupants Reporting* NUMBER	*Occupants Reporting* PERCENT
Arthritis or Rheumatism	81	(60)
High Blood Pressure	61	(45)
Heart Disease	51	(38)
Cataracts	43	(32)
Kidney Trouble	41	(30)
Deafness	40	(30)
Pneumonia	37	(27)
Stomach Trouble or Peptic Ulcers	37	(27)
Drug Reactions	37	(27)
Asthma, Hayfever, Hives	23	(17)
Diabetes	16	(12)
Cancer	11	(8)
Stroke	10	(7)
Mental Illness	6	(4)
Glaucoma	5	(4)
Tuberculosis	4	(3)
Other Conditions*	50	(37)

*Fifty people reported 20 other diseases.

ics and ten reported a previous stroke. It was not uncommon for one tenant to report having three or four major chronic diseases. While some of these diseases, like cataracts or arthritis, are not life-threatening, other diseases, like coronary heart disease, stroke and diabetes can present medical emergencies.

The fact that 45 (33%) of these patients had been admitted to a hospital as inpatients during the past year emphasized the potential seriousness of their health conditions. In fact, 42 had been admitted one time and three had been admitted twice to a hospital last year.

Another measure of chronic illness among these occupants was the use of artificial aids for everyday living. For example, 126 (93%) of the people interviewed wore glasses, 21 (16%) used a cane for walking, 15 (11%) used hearing aids, 3 (2%) used crutches, 2 (2%) used a wheel chair and one each used an artificial eye, a neck brace, and a walker. It was observed that many patients who had difficulty in hearing did not wear hearing aids.

Physician Services—Of the interviewed tenants, 104 (77%) receive medical care from a personal physician who practices in Columbia. A vast majority of patients volunteered information that they desire to continue seeing their own family physician. However, 21 (16%) had no personal physician in Columbia or elsewhere, six (4%) listed the Columbia City Health Department Clinic as the place they received physician services, three (2%) mentioned a physician outside of the Columbia-Boone County area and one (1%) listed the University of Missouri Medical Center. Thus, 18% of the senior citizens living in the apartment building did not have a planned pattern for physician services in Columbia.

The number of times a patient visits a physician's office is one indication of medical care utilization. Tenants reported that they visited their physician's office the following number of times during the previous month: 85 (63%), no visits; 41, one visit; four, two visits; three, three visits; one, four visits; and one, five or more visits. Thus, 50 (37%) had seen their physician one or more times during the previous month. The number of times patients visited their physician's office during the past year was 28 (21%), no visits; 23 (17%), one visit; 29 (21%), two to four visits; 28 (21%), five to nine visits; 15 (11%), ten to 14 visits; and 12 (9%), 15 or more visits. It is significant that 20% of the tenants visited their physician's office more than ten times a year. This would suggest that they require close medical supervision.

Many communities in Missouri and elsewhere are constructing housing projects for low income groups and aging citizens. Medical care for the tenants often has been planned in a haphazard manner. The authors believe that a "community diagnosis" should precede "community treatment." This paper illustrates this principle by reporting the planned medical care services for senior citizens in a public housing project in Columbia. The authors are from the University of Missouri School of Medicine where Dr. Parrish is a Professor and Mr. Heller, Mrs. Chier and Mrs. Smith are graduate students in the Department of Community Health and Medical Practice. Mrs. Carr is an Instructor in the School of Nursing.

When asked, "When was the last time you had a complete medical check-up," the following responses were given: 76 (56%), within the past year; 14 (10%), within the past one to two years; 20 (15%), within the past three to five years; and 14 (10%), last check-up was more than five years ago. Six (5%) reported they had never had a complete medical examination. Also, there were five (4%) people who couldn't remember when they had received their last examination. Thus, slightly more than one third of the tenants reported that they hadn't received a complete medical examination within the past three years. Most medical authorities agree that persons more than 50 years of age should have a physical check-up annually.

A factor which may be important in the utilization of physician services is convenience in travel to physicians' offices. Of 135 tenants, 104 (77%) stated they had no difficulty in traveling to their physician's office, 27 (20%) said it was difficult to reach a physician's office and four (3%) were undecided about convenience in reaching a physician's office. Those who had no difficulty either owned automobiles or had relatives in Columbia who drove them to the physician's office. Those who reported difficulty said they didn't like to ride a bus (although the city bus stops right in front of the apartment building) and taxis are too expensive.

When asked, "Do you ordinarily want someone to accompany you to the physician's office," the following responses were obtained: 75 (55%), no; 50 (37%), yes; five (4%), undecided; five (4%), not stated. When one considers the advanced age and physical condition of some of the tenants, it is not surprising that 37% would prefer to have someone accompany them to their physician's office. On the other hand, a high percentage (55%) of the tenants like to remain as independent as possible (or as their health allows).

Medical Insurance—When queried about hospital and medical insurance policies, the tenants reported the following information: 80 (59%) carried only Medicare; 47 (35%) carried Medicare plus a policy from a private insurance carrier; three (2%) were not eligible for Medicare and carried only a policy from a private carrier; and five (4%) reported they had no medical or hospital insurance of any kind. These were people less than 65 years of age and, for the most part, were relatives of an older tenant. Most of the tenants more than 65 years of age have both Medicare and Medicaid benefits. Thus, most of these people have adequate insurance coverage for a long-term illness which might require prolonged hospitalization. Perhaps it would be worthwhile to try to find coverage for the eight (6%) people who have no health insurance.

The Health Clinic—As previously mentioned, physical facilities for a health clinic are available in the apartment building for senior citizens. The tenants were asked what they thought about activating this health facility and whether or not they would like to have a nurse assigned to the clinic. One fact came through loud and clear—the tenants want to continue seeing their own family physicians; they do not want to be attended by a clinic physician. On the other hand, 121 (90%) stated they would like to have a nurse assigned to the clinic, 11 (8%) didn't want a nurse and three (2%) were undecided. Of the 11 people who didn't want a nurse, three said they wouldn't use a nurse's services but they thought she would be good for some of their fellow tenants. Four people belonged to religious groups that do not believe in using physicians or taking medicines.

Some of the possible functions for a nurse assigned to the clinic would be to assist in carrying out the orders of the patient's physician (to serve as a visiting nurse), to assist the tenants by providing health information, to provide first aid services, to serve as a counselor and friend to tenants who need someone with whom they can talk and in whom they can confide, to provide information about how to find a family physician for tenants who don't have one and to explain health insurance benefits.

RECOMMENDATIONS

On the basis of the information contained in this survey, the following recommendations were made concerning the health clinic in the Apartments for Senior Citizens:

1. The health clinic should be opened and properly equipped and furnished.

2. A nurse should be employed to staff the health clinic. Preferably, she should have experience or training in public health or some other form of community nursing. The nurse should be funded by the Columbia Health Department and she should report administratively to the director of that department.

3. Before a person is accepted as a tenant in the Apartments for Senior Citizens, he should have a complete medical examination by his family physician. The results of this examination should be recorded on an appropriate form and filed with the health clinic.

4. The facilities of the health clinic should be made available to physicians in Columbia or Boone County who have patients living in the apartment building, so that they can examine or treat their patients (who also are tenants).

SUMMARY

A survey of the health status of tenants of Apartments for Senior Citizens in Columbia was conducted during July, 1968. Approximately one half of the tenants lived alone in the building. A high percentage of them had one or more chronic diseases. About one third of the tenants had been hospital inpatients during the past year. Seventy-seven percent of the tenants have a private, personal physician in Columbia and 5% use the City Clinic or the University Medical Center, but 18% have no physician service. About one third of the occupants have not had a complete physical examination during the past three years. While most of the people want to continue seeing their own family physician, 90% of them were in favor of opening the health clinic in the building and having a nurse assigned there.

(Continued on page 211)

H. RICHARD McFARLAND, M.D., ***Kansas City***

The Management of Multiple Sclerosis

Part III—Apparent Suppression of Symptoms by an Estrogen-Progestin Compound

The final section of this article presents a discussion of the effects of multiple sclerosis in women during the menstrual period. A case report is included. Dr. McFarland is Instructor of Neurology at Kansas City General Hospital and Medical Center and at the University of Kansas Medical Center, Consultant in Neurology at the VA Hospital and a member of the staff at St. Luke's Hospital and Research Hospital.

Part I of this article appeared in the January, 1969 issue and Part II was published in the February, 1969 issue of MISSOURI MEDICINE. Reference numbers in the Bibliography have been continued from installment to installment.

The following outline gives an overall view of Dr. McFarland's work:

Part I

General Management

Part II

Serial Neurologic Examinations and Use
of Corticotropin and Glucocorticoids

Part III

Apparent Suppression of Symptoms
by an Estrogen-Progestin Compound

ALTHOUGH THIS FACT is not generally appreciated, it is common for women who have multiple sclerosis to feel worse during menstruation and to have exacerbations of the disease at this time. That estrogenic and progestational hormones influence this syndrome is suggested by the increase in the incidence of relapse in the puerperium.[27] Alexander[6] has outlined a hormone replacement program for females having symptoms during this period. He states, "Patients with multiple sclerosis usually do well during pregnancy, but the danger period occurs during the six months of the puerperal period. We feel that it is advantageous to imitate, as much as possible, the hormonal status prevailing during the pregnancy, and I, therefore, recommend that she receive the following drugs: estrogen (Premarin) 1.25 mg daily for the first 14 days of each 28 day period, and Premarin, 0.65 mg once daily and norethindrone (Norlutin) 5 mg twice daily for the following 14 days of each 28 day period throughout the six months following delivery. As soon as menstruation has returned, I recommend taking the combination of Premarin, 0.65 mg once daily, with norethindrone, 5 mg twice daily for 12 days prior to menstruation and for the first two days of menstruation, then Premarin alone, 1.25 mg daily, for the remaining 14 days of the cycle."

Following is a case report of a 36-year-old white woman whose monthly exacerbations apparently have been suppressed by the use of norethynodrel (Enovid-E) for more than two years.

CASE REPORT

For approximately 18 months prior to admission, this patient had symptoms of multiple sclerosis exclusively with the onset of menstruation and ceasing with cessation of bleeding until her gynecologist in Michigan suppressed menstruation for three months with stilbestrol. When her husband was transferred and she moved to Kansas City, the stilbestrol was stopped and she resumed menstruation. Concomitantly, she had a severe recurrence of multiple sclerosis, which persisted throughout the month, and became intensified with menses. She was admitted to St. Luke's Hospital in Kansas City in March, 1966. General examination was within normal limits except for an induration in the superior aspect of the left breast.

Neurologic examination revealed an ataxic gait with greater incoordination of the left leg. Although the reflexes were not increased, there was a left Babinski response. Extinction in the right foot, decrease in position sense in the left foot and slight decrease in vibration sense in both feet were found. She was euphoric. The remainder of the examination was normal.

These laboratory values were normal: blood count, urinalysis, sedimentation rate, VDRL, alkaline phosphatase, blood glucose, urea nitrogen, sodium, potassium, carbon dioxide, calcium, phosphorus, lupus erythematosus tests, serum electrophoresis, X-rays of the skull, cervical and lumbar spine and abdomen, EEG and EMG.

TABLE 1
PRIOR TO TREATMENT

	Menstruating 3/31/66	*After Menstruation* 4/4/66
Estrone	1	5
Estradiol	1	2
Estriol	1	6
Total estrogens*	3	13
Pregnanediol†	2.2	0.1

AFTER TREATMENT WITH ENOVID-E

	Menstruating 11/14/67	*After Menstruation* 11/19/67
Estrone	5	4
Estradiol	5	3
Estriol	2	3
Total estrogens	12	10
Pregnanediol	1.1	1.0

* (Bioscience laboratory normal = 4-60 micrograms/24 hours).
† (Bioscience laboratory normal = 0.5-7 milligrams/24 hours).

Other values (Table 1 included) were hemoglobin, 11.4 gm/100 cc and arterial pH, 7.4 (N = 7.35). Cerebrospinal fluid: 1 WBC; protein, 72 mg/100 cc; Wasserman, non-reactive; colloidal gold curve (Lange), 1233220000:

Cerebrospinal electrophoresis		Normal Values (Menorah Hospital Laboratory, Kansas City, Mo.)
Total protein	50	(20-50 mg%)
Pre albumin	1	(2-4)
Albumin	57.5	(45-52)
Alpha 1 globulin	5.0	(3.5-6.5)
Alpha 2 globulin	7.0	(7-10)
Beta globulin	14.5	(16-22)
Gamma globulin	15.0	(13-19)
A/G ratio	1.41	(.85-1.2)
A/gamma globulin	3.90	(2.7-4.2)
Beta/gamma globulin	0.967	(greater than 1.0)

The patient was examined in the hospital by her internist; by a neurologist, who confirmed the diagnosis of multiple sclerosis and suggested the use of corticotropin or glucocorticoids; and by a surgeon.

Following these tests, she was given cyclical norethynodrel and was discharged. She reported that she began feeling better almost immediately. When examined after her first period, she was neurologically normal except for euphoria and some hesitancy while walking tandem. She has remained asymptomatie for two years. Her only side-effect to norethynodrel is chloasma, which she gladly tolerates.

Discussion

Because of the above success with an anti-ovulating agent (stilbestrol), it seemed logical to test the urinary output of certain hormones during and following a menstrual period. The total urinary estrogens are known to reach a low point at the onset of menstruation and in this case were lower than normal, as was pregnanediol after menses (Table 1). After attaining these values, norethynodrel was prescribed in the usual cyclical manner. Note that the total estrogens are now well within normal limits during menstruation, as is pregnanediol after menses. Also, the total estrogen/pregnanediol ratio no longer has great variation, but remains about ten to one (Table 1).

Evidence is accumulating that the newer progestational drugs can be used safely to suppress ovulation and even menstruation, providing certain contraindications are not present.[28, 29]

Speculation regarding the mode of action of progestational agents on multiple sclerosis lesions is beyond the scope of this presentation. However, a program is underway to study the hormones of both males and females during bouts and in remissions. Treatment with progestational agents also will be instigated.

Any remission of only two years occurring in just one case will be subject to suspicion, especially since the relapse rate is approximately 0.75 per year.[30] I am well aware of the difficulty in making the prenecropsy diagnosis and the variations in the course of multiple sclerosis. Whether or not therapy in this case has true merit will depend upon the results of future studies.

Caution is in order. I have followed a florid case of multiple sclerosis in a patient who developed her first symptoms after taking norethynodrel for three years. Neither stopping nor restarting norethynodrel has influenced her case. At the present time, patients should be given a treatment trial only if their symptoms or bouts seem to be related to recurring changes during the monthly cycle.

SUMMARY

A case report of a 36-year-old woman whose exacerbation of multiple sclerosis symptoms occurred during menses is presented. Cyclical norethynodrel apparently suppressed symptoms. Caution regarding conclusions and the use of estrogen-progestin compounds for multiple sclerosis symptoms is emphasized.

Acknowledgement: The author wishes to express appreciation to Dr. C. Leslie Thompson for permission to study and treat this patient.

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Planning Medical Care Services

(Continued from page 208)

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Continuing Education Coming Events

March 10-12	**Postgraduate Medical Study—Pediatrics** University of Kansas Medical Center Battenfield Auditorium, Kansas City, Kan.
March 12-13	**Conference—Drug Therapy** Continuing Education, M.U. School of Medicine Medical Center, Columbia
March 17-19	**Postgraduate Medical Study—Otorhinolaryngology** University of Kansas Medical Center Battenfield Auditorium, Kansas City, Kan.
March 21-22	**21st Annual Midwest Cancer Conference** Sponsored by Kansas Division, American Cancer Society Broadview Hotel, Wichita, Kan.
March 24-26	**Postgraduate Medical Study—Surgery** University of Kansas Medical Center Battenfield Auditorium, Kansas City, Kan.
April 2-3	**Conference—Diagnosis and Treatment of Cardiac Arrhythmias** Continuing Education, M.U. School of Medicine Medical Center, Columbia
April 16-17	**Urology Seminar** Continuing Education, M.U. School of Medicine Kansas City General Hospital, Kansas City
April 21-25	**Conference—Pediatric Radiology** Continuing Education, M.U. School of Medicine Childrens Mercy Hospital, Kansas City
May 8	**"Examination and Licensure to Practice Medicine"** 20th Annual Dr. F. G. Thompson, Sr. Lectureship Thompson, Brumm & Knepper Clinic Clinic Building, St. Joseph

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President's Message

Elsewhere in this issue* is an excellent article from your MSMA Council regarding dues, and there is little I can add. All of us who have been concerned with the activities of the MSMA and with the maintenance of the stature of the medical profession in Missouri are aware of the increasing opportunities for our Association to project an active voice in the future of medical care for our patients, the people of the state. However, each job, each committee meeting and the necessary contacts with those in state government all cost money, not to mention the costs involved in obtaining additional office staff to cover adequately the essential business of the organization.

David N. Kerr, M.D.

To those of you who feel that your State Association or, for that matter, the AMA are not doing a job, I can only suggest that you attend the Annual Session in St. Louis on March 20-23. You are welcome to visit the House of Delegates and the sessions of the reference committees. I can assure you that very few doctors who have become involved in committee or delegate activities will ever again feel that the MSMA is a sterile organization. Further, if there are things you don't like, talk to one of your delegates and have resolutions presented voicing your thoughts and desires. It is your organization, and its success rests upon YOU.

This will be my last "President's Page," marking the beginning of the end of my term as your President. It has been a busy year and a rewarding one. Not the least of the rewards has been the chance to meet and talk with so many of you throughout the state, all fine physicians who are giving a good deal of your time and thinking to our problems. All are to be admired, and to have been your leader for the past year has been a great privilege. This goes double for the Council and the other state officers and triple for the staff—Ray McIntyre, Bob Carroll, Royal Cooper, "Bert" Thomas, Jean Duensing—the girl who commandeers this page each month and keeps the President out of trouble—and the rest of the girls. Thanks so much!

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* MSMA News Insert (162-163).

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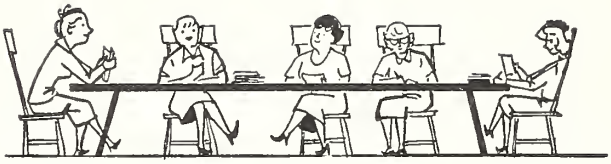
Woman's Auxiliary



A great big *thank you* from the Woman's Auxiliary to the Missouri State Medical Association for the continued interest and support extended to the Auxiliary this past year. As always, you have been great.

My own personal thanks to the Medical Association for all the courtesies extended to me and to Mr. Ray McIntyre and his staff in the state office for their interest and helpfulness. A special thanks to Miss Jean Duensing for being so helpful and understanding about the 12 articles I have written for MISSOURI MEDICINE.

This past year, each county auxiliary has done much community service and worked hard for the betterment of both the county and state auxiliaries. A complete report will be in the April issue of MISSOURI MEDICINE regarding what has been done by the auxiliaries in Missouri.

We are looking forward to our Annual Convention on March 20-23 in St. Louis, when Mrs. John M. Chenault, President-Elect of the Woman's Auxiliary to the American Medical Association will be our guest and bring us a message from the national auxiliary at the Friday luncheon. Each of you is cordially invited to attend any or all of our convention programs.

Mrs. E. F. Butler, President

There is every reason to believe that the Auxiliary will continue to broaden its program of service and that its participation in the affairs of the future will far exceed that of the past. With increased interest and sincerity the Woman's Auxiliary continually strives to maintain the high ideals of the medical profession and to serve the purpose for which it was organized. Its basic policies and its years of experience in meeting new and challenging issues will enable it to face the problems and responsibilities that may come as the result of changing economic and social conditions in the world.

EDITORIALS

MISSOURI PHYSICIANS, STATE GOVERNMENT AND MEDICAID

Missouri physicians have another tangible piece of evidence indicating that they have a friendly and sympathetic ally in state government. An Associated Press story out of Jefferson City quotes Proctor N. Carter, Director of the Division of Welfare, as praising physicians, druggists and hospitals for their "fine cooperation" in the state's Medicaid program. This is the second time in the past year that the Director has had words of commendation for participating physicians.

Officers and representatives of the Missouri State Medical Association probably are not surprised at Carter's attitude. During the General Assembly session in 1967, when the Medicaid program was being drafted, they found the Director (and through him, Governor Warren E. Hearnes) to be most receptive to the ideas and suggestions of the medical profession. John I. Matthews, MSMA Secretary and Chairman of the Legislative Committee, established an excellent rapport with the government agency. That spirit of mutual understanding and cooperation has continued despite occasional points of friction.

The Missouri situation stands in sharp contrast to conditions in some other states where governmental agencies and officials have adopted a high-handed "take-it-and-like-it" philosophy. In some instances, these agencies and officials have used every opportunity to blame their own mistakes and problems on the providers of services . . . the physicians, druggists and hospitals.

Missouri physicians . . . individually and collectively . . . deserve praise for their actions in the Medicaid program. MSMA provided assistance and counsel in drafting the program. Hector W. Benoit, Jr., then MSMA President, provided the leadership in establishing the Medicaid claims review mechanism, a plan which provided true "peer review." All specialty organizations assisted in setting up the plan, and, as a result, Missouri doctors are entitled to charge their "usual and reasonable" fees for services to welfare patients. There have been comparatively few abuses to this provision.

While the physicians of Missouri have reason to be proud of their Medicaid record, praise also should go to Carter and the Hearnes administration for their cautious approach to the program. Some states under pressure from various "do-gooder" groups and for political expediency rushed into full-fledged Medicaid programs and have been in financial and operational trouble ever since.

Missouri implemented a modest program under the first step of Medicaid, which covers only those persons already on Welfare assistance. No effort was made to cover the "medically indigent" or "near needy," coverage which has turned out to be a financial back-breaker for many of the states which have attempted it. There is no indication at this time that Governor Hearnes is contemplating this further expansion of the Missouri program. Total cost of Medicaid in Missouri for the 1968-1969 fiscal year will be in excess of 41 million dollars. The State's share of that will be nearly 16 million.

The Medicaid experience in Missouri is an encouraging example that there can be effective and satisfactory cooperation between the government and the private sectors to the benefit of all.

ALLEN D. SMITH, Executive Secretary
Jackson County Medical Society
The Greater Kansas City Medical Bulletin

THE HOMINY MAN DOESN'T LIVE HERE ANY MORE

Our Jayhawker friends insist that there really was a hominy man who delivered this so-called delicacy right to your house. We eat hominy at irregular intervals, while the rest of our family views eggplant, coconut and hominy dimly. But if there was a hominy man in Kansas, there was his counterpart in Connecticut, and did we not meet his likeness in Nebraska?

Times have changed. The barber's lathering brush is gone and shaving mugs are only symbols. The last horse and wagon have disappeared and the hominy man is gone, too: hominy comes in cans now.

And progress in medicine has far outdistanced progress in any other field.

A hip fracture is no longer a death sentence. Pneumonia, which used to follow a broken hip and was called the old man's friend because it carried him off speedily, is treated easily and cured quickly. Surgery has largely replaced the nonoperative treatment of appendicitis. Poliomyelitis is almost a thing of the past. Cancer chemotherapy and supervoltage help those once beyond help. Anesthesia has removed the nightmare of pain in the operating room. Children's vaccines have to a great extent eliminated the scourges of infancy. Six-line nonspecific prescriptions have yielded to life-saving orders for individual drugs. Antibiotics have literally changed death to life. Smallpox has disappeared from our midst, and who among us has seen the once common and dreaded diphtheria?

People now live to 70, not 20.

And who has brought this about? We did.

You can't go home again, Wolfe said. But who wants to?

We wish the hominy man Godspeed; but Janus faced the future, too. And tomorrow belongs to the doctor.

FRANK COLE, M.D., Editor
The Nebraska State Medical Journal

COMMENT . . .

Our Readers Write

Dear Editor:

The Medical Genetics Section of the Department of Preventive Medicine and Public Health at Creighton University School of Medicine, Omaha, Nebraska, is interested in the study of patients showing an increased incidence of any histological variety of cancer in their families. Of particular interest to us is the cancer family syndrome, characterized by (1) increased frequency of adenocarcinoma of all sites, particularly of the colon and endometrium, (2) early age at onset of cancer, (3) increased occurrences of multiple primary malignant neoplasms and (4) autosomal dominant inheritance.

We currently are updating two large cancer families having the above characteristics who live primarily in the Midwest, in middle and northwestern Missouri, Iowa, Nebraska, Colorado, Michigan, Indiana and Illinois. The initial phases of the investigations of the families have been published (Lynch, H. T., *et al:* Hereditary Factors in Cancer: Study of Two Large Midwestern Kindreds, *Arch. Intern. Med. 117*:206-212, 1966).

Physicians with patients known to have a familial cancer background may write to Henry T. Lynch, M.D., Associate Professor and Chairman, Department of Preventive Medicine and Public Health, Creighton University School of Medicine, 657 North 27th Street, Omaha, Neb. 68131.

We invite your cooperation in our studies which will include a genealogical and medical investigation of the entire kindred in each case. All information obtained will be shared with family physicians in order to facilitate cancer control.

HENRY T. LYNCH, M.D.
Associate Professor & Chairman
Department of Preventive Medicine
& Public Health
Creighton University School of Medicine
Omaha, Neb.

In Memoriam

Barger, O. B., M.D., Harrisonville, a graduate of the University of Arkansas, 1938; member of West Central Missouri Medical Society; aged 54; died Dec. 16, 1969.

Lakes, John D., M.D., St. Louis, a graduate of St. Louis University, 1951; member of St. Louis County Medical Society; aged 45; died Dec. 22, 1968.

Fredeen, Robert C., M.D., Fairway, Kansas, a graduate of the University of Kansas, 1934; member of Jackson County Medical Society; aged 58; died Dec. 25, 1968.

Alexander, Harry L., M.D., St. Louis, a graduate of Columbia University, 1914; member of St. Louis Medical Society; aged 82; died Jan. 5, 1969.

Kent, Clifford F., M.D., Kansas City, a graduate of the University of Nebraska, 1929; member of Jackson County Medical Society; aged 67; died Jan. 6, 1969.

Frame, Homer G., M.D., Cabool, a graduate of Washington University, 1902; member of South Central Counties Medical Society; aged 91; died Jan. 16, 1969.

Clark, Chester Lee, M.D., Trenton, a graduate of St. Louis University, 1944; member of Grand River Medical Society; aged 49; died Jan. 19, 1969.

County Society News

FIRST DISTRICT

COUNCILOR
JOSEPH L. FISHER, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

Forty-two St. Joseph and area physicians attended the January 8 meeting of the Buchanan County Medical Society which followed a 6:30 PM dinner at Les's Restaurant in St. Joseph.

Dr. John L. Mothershead, newly-installed Society President, presided at the session. Dr. F. Gregg Thompson III introduced the speaker, Dr. Robert L. Jackson, Professor and Chairman of the Department of Pediatrics at the University of Missouri School of Medicine. Dr. Jackson gave a most interesting paper which he illustrated with slides. His subject was "Chemical Diabetes in Children."

Dr. R. Philip Acuff was elected an Alternate Delegate to the MSMA to fill the term of the late Dr. Thompson E. Potter.

LAWRENCE H. PIFER, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

The Chariton-Macon-Monroe-Randolph County Medical Society held its monthly meeting in the Woodland Hospital Library on January 9. Dr. Robert Hasson, President, presided.

Dr. James Byland of Moberly, a dentist, spoke to the Society about dental rehabilitation. He discussed his work with endodontics, which is concerned with implantation with teeth and other permanent devices to replace missing or partially destroyed natural teeth. He told of a case in which a boy's tooth had been replaced after being out for nine days. He also discussed working with cleft palates, replacement of badly decayed teeth with crowns and the use of stainless steel crowns for deciduous teeth in children.

The meeting also included the presentation of case reports by members of the Society. Dr. J. Will Fleming presented two case reports of pernicious anemia and four case reports of the treatment of patients who had metastatic cancer with the drug, 5-Fluorouracil. Three of the patients are still living after several years of treatment. The cancer had been in the lungs and the x-rays had become negative.

Dr. Thomas S. Fleming described several unusual heart cases. One was the case of dextrocardia with electrocardiogram demonstrations. He also described converting ventricular tachycardia to a normal rhythm with electric shock by an instrument called the Lown Cardioverier. He gave the members of the Society some excellent pointers for treating atrial tachycardia.

Dr. Robert V. Tompson presented color slides of unusual surgical cases.

The following physicians were present: Drs. F. L. Harms, Chariton County; Josephine D. Baker, A. P. Rowlette, J. Will Fleming, T. S. Fleming, Robert H. Young, W. D. Chute, C. C. Cohrs, L. E. Huber, Robert Hasson, P. V. Dreyer, R. V. Tompson, Randolph County; and F. A. Barnett, Monroe County. Dr. James Byland of Moberly was a guest.

CLARENCE C. COHRS, M.D., *Secretary*

FOURTH DISTRICT

COUNCILOR
ROBERT A. MAYER, M.D.,
ST. LOUIS COUNTY

ST. LOUIS COUNTY MEDICAL SOCIETY

Dr. Charles Miller, Jr., Kirkwood, was installed as President of the St. Louis County Medical Society on January 25. The Installation Dinner Dance was held in the Men's Grill of the St. Louis Club in Clayton. Other officers installed were Drs. Miles C. Whitener, President-Elect; Jack Eidelman, Vice-President; G. Robert Bowles, Secretary; and Frederick Peterson, Treasurer. Five new members, who were added to the Council, also were installed at the meeting. Dr. Robert A. Mayer, Past-President of the Society and Councilor for the Fourth District, was the installing officer.

It was reported that the Society, which was formed in 1903, now has a membership of more than 450. It publishes *The St. Louis County Medical Society Bulletin*, which it believes is the most often reprinted Bulletin in the United States.

Plans for 1969 include a Medical Seminar Tour of South America (departure date was February 23), four general Society meetings and at least two special meetings to which world-famous speakers will be invited to appear.

G. Robert Bowles, M.D., *Secretary*

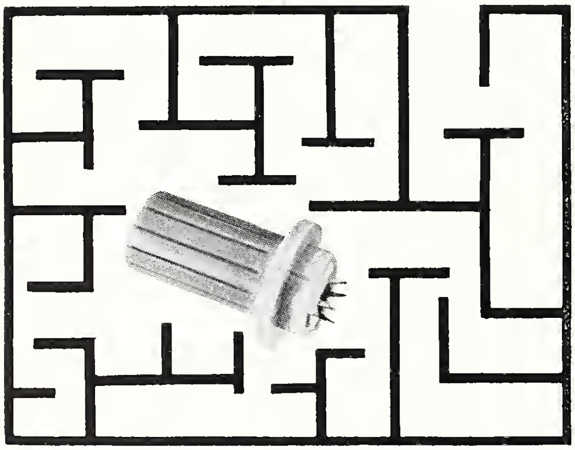
SIXTH DISTRICT

COUNCILOR
ROLLA B. WRAY, M.D., NEVADA

West Central Missouri Medical Society

The January meeting of the West Central Missouri Medical Society was held at Glen's Cafe in Butler on January 9. The customary social hour and dinner preceded the scientific program.

The scientific portion of the program was presented by Frank L. Mitchell, M.D., Department of Surgery, University of Missouri School of Medicine. Dr. Mitchell was sponsored by the Postgraduate Education Committee of the MSMA. His presentation concerned "Emergency Medical Care" and was primarily centered around the transportation of the injured or severely ill patient by ambulance to the medical facility. His presentation of ambulance equipment, personnel and the training program now available at the University of Missouri Medical Center was exciting and stimulating, and the program undoubtedly will result in better ambulance care in our state of Missouri.



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Following the scientific program, there was a brief business meeting of the Society. Communications received by the Secretary were presented and discussed. The Program Committee presented suggested programs for the February and March meetings. The February meeting is to be held in Harrisonville and would be concerned with legislation relative to the Medical Examiner Act. The March meeting is scheduled to be held in Nevada and would be presented by a team from the Missouri State Sanatorium in Mount Vernon. Members present approved both programs.

President William W. Haynie announced that other committees had not been appointed, but the appointments would be made and members would be notified within the next few weeks.

There being no further business, the meeting was adjourned.

Roy W. Pearse, Jr., M.D., *Secretary*

NINTH DISTRICT

COUNCILOR
E. A. STRICKER, M.D., ST. JAMES

South Central Counties Medical Society

The South Central Medical Society met at the Holiday Inn in West Plains on January 22. Hosts for the evening were Dr. and Mrs. W. Thomas Morgan, Jr. of West Plains.

After a brief social hour and a repast of steaks cooked to order, the ladies retired to the home of Dr. and Mrs. Morgan.

Dr. Floyd Barnhill, Springfield, presented a program on "Epistaxis and Maxillo-Facial Injuries." An extensive question session was held.

Following Dr. Barnhill's lecture, a brief business session was held and the meeting adjourned.

Jack N. Wiles, M.D., *Secretary*

TENTH DISTRICT

COUNCILOR
W. D. ENGLISH, M.D., CARDWELL

Cape Girardeau County Medical Society

The Cape Girardeau Medical Society met on January 6, at which time the following officers for 1969 assumed their duties:

They were Dr. Charles P. McGinty, President; the Executive Committee consisting of Drs. Gordon M. Nunnelly, Vice-President; Clifford R.

Talbert, Jr., Secretary; and Gerald M. Hoxworth, Treasurer. Delegates to the MSMA Annual Session were Drs. Harold B. Rapp, Melvin C. Kasten and Edwin K. Burford, who also is Parliamentarian. The Board of Censors were Drs. Thomas G. Otto for one year, Thomas A. Lovinggood for two years and Jo Robert Cochran for three years.

Committees (supervised by Censors) were divided into three primary sections—education, emergency care and public relations. The Education Section, headed by Dr. Thomas A. Lovinggood, contained a Program Committee with Dr. Earl W. Johnson as Chairman, and County Journal Editor. Other chairmen are Drs. L. R. Seabaugh, Lectureship Committee; Melvin C. Kasten, Cancer Committee; C. R. Talbert, Jr., Heart and Stroke Program Committee; and J. W. Terry, Library Committee.

The Emergency Care Section, headed by Dr. Thomas G. Otto, contained the Civil Defense Committee, Dr. John T. Crowe, Chairman; Trauma Statistics Committee, Dr. W. O. L. Seabaugh, Chairman; Emergency Call and Athletic Roster Committee, Dr. Jerry L. Kinder, Chairman; Ambulance Attendants Training Committee, Dr. J. O. Alyea, Chairman.

The Public Relations Section is headed by Dr. Jo Robert Cochran and contained the Publicity Committee, Dr. R. A. Ritter, Chairman; Public Health and Preventive Medicine Committee, Dr. Jean A. Chapman, Chairman; College Liaison Committee, Dr. Charles F. Bahn, Chairman; and Pharmacy Liaison Committee, Dr. Seth S. Barnes, Chairman. Medical Assistants Advisors were Drs. J. N. Tygett and George E. Magaletta.

Committees not under these sections included the Audit Committee (Ways and Means) of which Dr. Dale Blankenship is Chairman and the Entertainment Committee of which Dr. G. R. Weeks is Chairman.

C. R. Talbert, Jr., M.D., *Secretary*

Mineral Area Medical Society

Dr. Tom R. Burcham, President, presided at the January 23 meeting of the Mineral Area Medical Society in the Hoctor Building of the State Hospital in Farmington. Members present were Drs. G. L. Watkins, G. A. Oliver, C. W. Chastain, Emmett Hoctor, R. A. Huckstep, Retus Osborn, Jack Mullen, C. H. Appleberry, Paul Dennis and Kirby Turner. Dr. A. D. Newcomb, Fredericktown, and Dr. Andrew Fraser, Flat River, were guests.

The scientific portion of the meeting consisted of a presentation by William Stoneman, M.D., St. Louis, the coordinator of the Bi-State Regional Medical Program, who gave an interesting talk and described the structure and potentials of the new group. He was assisted by Mr. David Young, a Field Director for the Bi-State Regional Medical Program.

Dr. Burcham appointed Dr. Kirby Turner as the third member of the Credentials Committee for a three-year term. Other members are Drs. C. H. Appleberry, Chairman, whose term expires this year, and Dr. T. R. Burcham.

It was pointed out that copies of the Constitution and By-Laws of the Mineral Area Medical Society are no longer available, and Drs. Chastain and Appleberry were requested to prepare a new set for membership approval.

The February meeting will be a joint meeting with the Mineral Area Medical Society Auxiliary, after which refreshments will be served.

Drs. Appleberry and Osborn from the State Hospital discussed the desire of the State Hospital to send summaries of patients who are discharged to the referring doctor. The Society felt that this was a good idea and that this information would be appreciated by the referring physicians.

The following motion was introduced by Dr. Watkins and seconded by Dr. Huckstep:

> Whereas, a grievous need for more nurses exists, and
> Whereas, the local hospitals have all indicated willingness to cooperate in such a program of nursing education, be it therefore
>
> *Resolved*, that the Mineral Area Medical Society endorses the formation of a registered nurse training program at the Mineral Area College and pledges its support to efforts to obtain financial help from appropriate agencies for this program.

The motions was unanimously approved.

There being no further business, the meeting was adjourned.

C. W. Chastain, M.D., *Secretary*

RECOVERY ROOM

New Members

Floyd R. Barnhill, M.D., 600 S. Glenstone, Springfield, has become a member of Greene County Medical Society. Dr. Barnhill is a native of Jonesboro, Ark., received his preliminary education at Arkansas State College and his M.D. degree at the University of Tennessee in 1961. He is in general practice.

Michael K. Blank, M.D., Rte. 3, DeSoto, has become a member of Jefferson County Medical Society. Dr. Blank is a native of Cape Girardeau, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1968. He is in general practice.

William R. Cook, Jr., M.D., 615 S. New Ballas Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Cook is a native of Philadelphia, Pa., received his preliminary education at John Carroll University and his M.D. degree at St. Louis University in 1968. He is an intern.

Quentin Cramer, M.D., 601 East 12th St., Kansas City, has become a member of Jackson County Medical Society. Dr. Cramer is a native of Linn, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1943. He specializes in internal medicine.

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Pilar Juan Franco, M.D., 600 East 22nd St., Kansas City, has become a member of Jackson County Medical Society. Dr. Franco is a native of Mexico City, Mexico, received his preliminary education at Universidad Nacional Autonoma de Medicina and his M.D. degree at Universidad Nacional Autonoma de Medicina. He specializes in child psychiatry.

Lester S. Garfinkel, M.D., 308 Defor Dr., Columbia, has become a member of Boone County Medical Society. Dr. Garfinkel is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1959. He specializes in oncology.

Donald W. Goodwin, M.D., 4940 Audubon Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Goodwin is a native of Parsons, Kan., received his preliminary education at Baker University and his M.D. degree at the University of Kansas in 1964. He specializes in psychiatry.

Joel J. Haffner, M.D., 600 East 22nd St., Kansas City, has become a member of Jackson County Medical Society. Dr. Haffner is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at the University of Missouri in 1962. He specializes in psychiatry.

Edwin M. Herman, M.D., 4949 Rockhill Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Herman is a native of St. Joseph, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1965. He specializes in radiology.

Charles K. Hofling, M.D., 1221 S. Grand Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Hofling is a native of Cincinnati, Ohio, received his preliminary education at Ohio University and the University of Cincinnati and his M.D. degree at the University of Cincinnati in 1946. He specializes in psychiatry.

Jose M. Hori, M.D., Ellis Fischel State Cancer Hospital, Columbia, has become a member of Boone County Medical Society. Dr. Hori is a native of Chipas, Mexico, received his preliminary education at Centro Universitario and his M.D. degree at Facultad de Medicina Universidad in 1957. He specializes in pathology.

James N. Hueser, M.D., 1104 Maplewood, Columbia, has become a member of Boone County

Medical Society. Dr. Hueser is a native of Clinton, received his preliminary education at Rockhurst College and his M.D. degree at the University of Missouri in 1963. He specializes in internal medicine.

Lynn H. Kindred, M.D., 4949 Rockhill Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Kindred is a native of Emporia, Kan,. received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1963. He specializes in cardiology.

Roger Seaman Knapp, M.D., 123 W. 3rd St., Cameron, has become a member of Grand River Medical Society. Dr. Knapp is a native of Washington, D. C., received his preliminary education at Auburn University of Alabama and Texas Technical College and his M.D. degree at Tulane University in 1937. He is in public health.

Jon R. Leach, M.D., 131 S. Main, Maryville, has become a member of Northwest Missouri Medical Society. Dr. Leach is a native of Unionville, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1965. He is in general practice.

Charles J. Leagus, Jr., M.D., 1211 S. Glenstone, Springfield, has become a member of Greene County Medical Society. Dr. Leagus is a native of Wilkes-Barre, Pa., received his preliminary education at Bucknell University and his M.D. degree at Hahnemann Medical College in 1957. He specializes in thoracic and cardiovascular surgery.

Richard H. Loeb, M.D., 1211 S. Glenstone, Springfield, has become a member of Greene County Medical Society. Dr. Loeb is a native of Ottawa, Ill., received his preliminary education at Kansas University and his M.D. degree at Kansas University in 1959. He specializes in internal medicine.

Robert W. Long, M.D., 7336 Huntington, Normandy, has become a member of Franklin-Gasconade-Warren County Medical Society. Dr. Long is a native of Lincoln, Neb., received his preliminary education at the University of Nebraska and his M.D. degree at Marquette University in 1961. He specializes in pathology.

Harvey R. Michael, M.D., 1211 S. Glenstone, Springfield, has become a member of Greene County Medical Society. Dr. Michael is a native of Prichard, W. Va., received his preliminary education at Central State College and his M.D. degree at the University of Oklahoma in 1962. He specializes in orthopedic surgery.

James L. Owens, M.D., 920 W. 47th St., Kansas City, has become a member of Jackson County Medical Society. Dr. Owens is a native of Kansas City, received his preliminary education at Tulane University and his M.D. degree at Tulane University in 1961. He specializes in obstetrics and gynecology.

Paul W. Pendell, M.D., Rolla, has become a member of Mid-Missouri County Medical Society. Dr. Pendell is a native of Wellington, Kan., received his preliminary education at Wheaton College and his M.D. degree at Hahnemann Medical College in 1948. He specializes in general surgery.

Ronald L. Pitts, M.D., 11201 Colorado, Kansas City, has become a member of Jackson County Medical Society. Dr. Pitts is a native of Portsmouth, Ohio, received his preliminary education at the University of Kentucky and his M.D. degree at the University of Louisville in 1962. He specializes in internal medicine.

Jerry Lee Puls, M.D., 4801 Linwood Blvd., Kansas City, has become a member of Jackson County Medical Society. Dr. Puls is a native of Dayton, Ohio, received his preliminary education at Indiana University and his M.D. degree at the University of Oklahoma in 1961. He specializes in pathology.

Neal S. Ratzlaff, M.D., 4949 Rockhill Rd.,

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Kansas City, has become a member of Jackson County Medical Society. Dr. Ratzlaff is a native of York, Neb., received his preliminary education at Nebraska Wesleyan University and his M.D. degree at the University of Nebraska in 1963. He specializes in radiology.

Michael R. Richmond, M.D., 3219 Haas, Bridgeton, has become a member of St. Louis Medical Society. Dr. Richmond is a native of Doniphan, received his preliminary education at Washington University and his M.D. degree at the University of Missouri in 1961. He specializes in internal medicine.

Wade V. Robinett, M.D., 6700 Troost, Kansas City, has become a member of Jackson County Medical Society. Dr. Robinett is a native of Brumley, received his preliminary education at Park College and his M.D. degree at the University of Missouri in 1963. He specializes in otolaryngology.

Jay Irving Rozen, M.D., 6400 Prospect, Kansas City, has become a member of Jackson County Medical Society. Dr. Rozen is a native of Tulsa, Okla., received his preliminary education at Tulane University and his M.D. degree at Tulane University in 1963. He specializes in radiology.

John A. Shively, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Shively is a native of Rossville, Ind., received his preliminary education at Indiana University and his M.D. degree at Indiana University in 1946. He specializes in pathology.

John L. Simmons M.D., 6400 Prospect, Kansas City, has become a member of Jackson County Medical Society. Dr. Simmons is a native of Marshall, received his preliminary education at Washington University and his M.D. degree at Washington University in 1951. He specializes in urology.

Jose A. Temporal, M.D., 3933 S. Broadway, St. Louis, has become a member of St. Louis Medical Society. Dr. Temporal is a native of Abulug, Cagayan, Philippines, received his preliminary education at Colegio de Immaculada Conception and his M.D. degree at Manila Central University in 1952. He is in general practice.

Thomas L. Wachtel, M.D., 615 S. New Ballas Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Wachtel is a native of Mansfield, Ohio, received his preliminary education at Western Reserve University and his M.D. degree at St. Louis University in 1964. He specializes in general surgery.

Robert N. Westerman, M.D., 597 Purdue Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Westerman is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at St. Louis University in 1968. He is an intern.

Bernard A. Winer, M.D., 751 E. 63rd St., Kansas City, has become a member of Jackson County Medical Society. Dr. Winer is a native of Kansas City, received his preliminary education at the University of Missouri and his M.D. degree at the University of Kansas in 1961. He specializes in obstetrics and gynecology.

Kenneth E. Woodside, M.D., 200 S. Hanley Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Woodside is a native of Elwood, Ind., received his preliminary education at the University of Alabama and his M.D. degree at the University of Alabama in 1957. He specializes in occupational medicine.

Leo M. Wyrsch, Jr., M.D., Springfield, has become a member of Greene County Medical Society. Dr. Wyrsch is a native of Springfield, received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri in 1960. He specializes in obstetrics and gynecology.

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SPRING PROFESSIONAL PROGRAM

The Post-Treatment Care of the Oral Cancer Patient

Saturday, April 12, 1969

8:30 AM Registration (no fee).

9:00 AM Welcome, John S. Spratt, Jr., M.D., Chief Surgeon and Chief of Staff, EFSCH.

9:15 AM *General Problems and Follow-Up Needs of the Oral Cancer Patient,* Hugh S. Harris, Jr., M.D., EFSCH and M.U. School of Medicine.

9:40 AM *The Dentist's Role in the Follow-Up Period,* Nathaniel H. Rowe, D.D.S., University of Michigan School of Dentistry, Ann Arbor, Mich.

10:00 AM *Efoliative Cytology of Suspicious Lesions in Irradiated Mucosa,* Ordie King, D.D.S., St. Louis University School of Dentistry, St. Louis.

10:20 AM Coffee Break.

10:40 AM *Care of the Oral Cancer Patient Treated by Radiotherapy,* Donald A. Kerr, D.D.S., University of Michigan School of Dentistry, Ann Arbor, Mich.

11:30 AM Luncheon.

1:15 PM *Early Rehabilitation of the Oral Cancer Patient by Means of Immediate Surgical Reconstruction,* John E. Hoopes, M.D., Barnes Hospital and Washington University School of Medicine, St. Louis.

2:00 PM *Problems in Swallowing in the Post-Treatment of the Oral Cancer Patient,* Donald P. Shedd, M.D., Roswell Park Memorial Institute, Buffalo, N. Y.

2:45 PM Coffee Break.

3:00 PM *Rehabilitation of the Post-Surgery Oral Cancer Patient,* Victor Matalon, D.D.S., M. D. Anderson Hospital and Tumor Institute and University of Texas Dental Branch, Houston, Tex.

3:45 PM Panel Discussion.

Ruheri Perez-Tamayo, M.D., EFSCH and M.U. School of Medicine, Moderator.
Hal G. Bingham, M.D., M.U. School of Medicine.
John E. Hoopes, M.D.
Donald A. Kerr, D.D.S.
Ordie King, D.D.S.
Victor Matalon, D.D.S.
Donald P. Shedd, M.D.

The Ellis Fischel State Cancer Hospital and Cancer Research Center Professional Program is open to all members of the medical and dental professions. For further information, address correspondence to Hugh S. Harris, Jr., M.D., Ellis Fischel State Cancer Hospital, Columbia, Mo. 65201.

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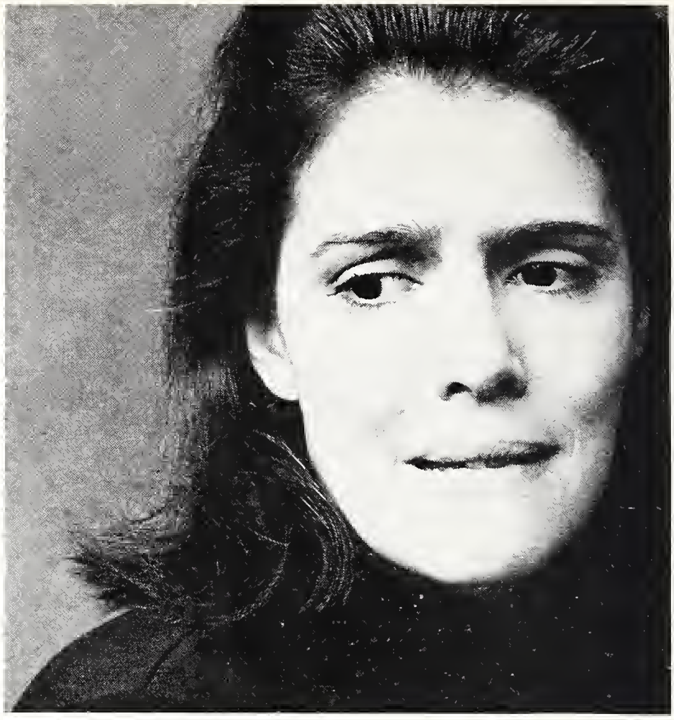
(Western Missouri Administrators)



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for the pathogens

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Urinary tract infections with associated pain or discomfort when due to susceptible organisms; prophylactically in urologic surgery, catheterization and instrumentation.

Contraindicated in sulfonamide-sensitive patients, pregnant females at term, premature infants, newborn infants during the first three months of life, glomerular nephritis, severe hepatitis, uremia and pyelonephritis of pregnancy with gastrointestinal disturbances.

Warnings: Use only after critical appraisal in patients with liver damage, renal damage, urinary obstruction or blood dyscrasias. If toxic or hypersensitivity reactions or blood dyscrasias occur, discontinue therapy. In closely intermittent or prolonged therapy, blood counts and liver and kidney function tests should be performed.

Precautions: Observe usual sulfonamide therapy precautions including maintenance of an adequate fluid intake. Use with caution in patients with histories of allergies and/or asthma. Patients with impaired renal function should be followed closely since renal impairment may cause excessive drug accumulation. Occasional failures may occur due to resistant microorganisms. Not effective in virus and rickettsial infections.

Adverse Reactions: Headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, Stevens-Johnson syndrome, injection of the conjunctiva and sclera, petechiae, purpura, hematuria or crystalluria may occur, in which case the dosage should be decreased or the drug withdrawn.

Dosage: Adults—4 tablets initially, then 2 tablets morning and evening.

How Supplied: Tablets, bottles of 50.

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LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

National Conference On Breast Cancer

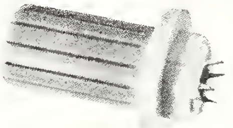
Physicians and allied scientists are invited to attend the National Conference on Breast Cancer at the Shoreham Hotel in Washington, D. C. on May 8-10, 1969. A multidisciplinary review of the breast cancer problem in the United States will be presented, including epidemiology, etiology, detection, diagnosis, management and control measures. Successful as well as disappointing approaches in combatting the disease will be discussed in an effort to identify possible directions for future progress.

Chairman of the Program Committee for the Conference is Wendell G. Scott, M.D., Professor of Clinical Radiology at the Washington University School of Medicine. Other Missouri physicians participating in the program are Drs. Lauren V. Ackerman, Professor of Surgical Pathology and Pathology; Willard M. Allen, Professor and Chairman, Department of Obstetrics and Gynecology; and William E. Powers, Professor of Radiology and Director of Radiation Therapy, Washington University School of Medicine.

No registrations fee is required, but preregistration is requested. Contact Roald N. Grant, M.D., American Cancer Society, 219 East 42nd St., New York, N. Y. 10017.

TB is still around.

In 1967 almost 45,000 new active cases were reported. Isn't that a good reason to make tuberculin testing with the white LEDERTINE™ Applicator a routine part of your physical examinations?



TUBERCULIN TINE TEST
(Rosenthal) with Old Tuberculin

Precautions: With a positive reaction, consider further diagnostic procedures. Use with caution in persons with active tuberculosis or known allergy to acacia. Vesiculation, ulceration, or necrosis may occur at the test site in highly sensitive persons.

Lederle LEDERLE LABORATORIES
A Division of American Cyanamid Company, Pearl River, N.Y.
472-9

FINANCIAL STATEMENT FOR THE YEAR 1968

LENNERTSON & COMPANY
Certified Public Accountants

ST. LOUIS, MISSOURI 63105

January 27, 1969

Missouri State Medical Association
515 East High Street
Jefferson City, Mo. 65101

Gentlemen:

The accounts of the Missouri State Medical Association, a non-profit Missouri corporation, were reviewed for the year 1968, and a report thereon is presented together with the following exhibits:

Exhibit A	Balance Sheet
Exhibit B	Income Statement
Exhibit C-1	Statement of Committee and Meeting Expenses
Exhibit C-2	Statement of Investments
Exhibit D	Dues Receivable and Memberships by Societies

It should be noted that members' dues and investment income are taken into income on the cash receipt basis whereas the other accounts are maintained on the accrual basis. Rentals received in advance for Annual Session exhibit space are shown as prepaid and carried forward to the year to which they apply.

Scope of Examination

The Balance Sheet at December 31, 1968 and the Income Statement for the year then ended were reviewed. Examinations or tests were made of the accounting records, in the manner and to the extent deemed appropriate, without making a detailed audit of the transactions.

Recorded cash receipts for the year were traced in total into the bank as deposits and disbursements for the period were substantiated by an inspection of paid checks, purchase invoices and other data on file.

Selective tests were made of the income and expense accounts for the period. It was noted that space in the Journal was contributed to the United States Treasury Department for bond advertising, to members for small classified ads, and to the Missouri State Medical Foundation.

Income Statement

The financial result of activities of the Association for the year 1968 was an excess of income over expenses of $9,956.84 as set forth in Exhibit B.

Balance Sheet

The financial position of the Association at December 31, 1968 is presented in Exhibit A. Comments on the larger balance sheet accounts follow:

Cash in banks, as shown by the books, was reconciled to the regular monthly bank statements and confirmations received from the depositaries. The petty cash fund was verified by physical count.

Investments with the cost of $112,371.58 and a certificate of deposit for $15,000 were confirmed by a statement from the custodian, Mercantile Trust Co. Investment income for the year was as follows:

Interest—Certificate of Deposit	$2,972.90
Interest and discount on bonds	2,727.17
Dividends on Stock	1,377.40
Total Investment Income	$7,077.47

Accounts Receivable of $5,089.84 represent the unpaid balance due from Journal advertisers. Of this amount $4,535.84 was due from the State Journal Advertising Bureau as follows:

December 1968	$1,698.58
November 1968	2,474.31
Prior to November 1968	362.95
Total	$4,535.84

On January 16, 1969, a check was received paying $2,767.56 of the November and prior accounts.

Unpaid dues of $2,130.00, offset by a reserve account in like amount, represent 1968 dues of delinquent members carried at the requests of local Societies. Other delinquent members were dropped from membership in accordance with by-laws. Exhibit D presents a summary of unpaid dues and membership by Societies, as shown by the records of the Association.

Furniture and fixtures continue to be stated in the fixed amount of $1,000. Equipment purchases, rentals and repairs for the year in the sum of $4,933.69 were charged to expense in lieu of depreciation.

The records were carefully reviewed for liabilities at December 31, 1968 and it is believed that all current liabilities of substantial amount are included in the Balance Sheet. The by-laws state that the Association may furnish financial assistance to defray costs, not to exceed $300 on each individual malpractice suit. The Association reports one suit in litigation at year-end.

Exhibitors have made advance payments of $6,867.50 for annual session exhibit space and these payments will be taken into income when earned in 1969.

The excess of assets over liabilities in the amount of $154,647.75 is shown in the Balance Sheet as a "Reserve for Future Activities."

General

During the year, payments were made to and for the following sponsored organizations:

Missouri State Medical Association Pension Fund	
Employees' Retirement Insurance Premiums	$ 5,046.30
Employees' Pension Plan Contribution	5,146.05
Total	$10,192.35
Missouri State Medical Foundation—Insurance, audit, printing and meeting expense	$ 1,999.62

Collections for the American Medical Association and the Missouri State Medical Foundation are made along with the annual Missouri State Medical Association dues. Following is a schedule of dues and assessments for each member:

	Active	*Junior*
Journal	$ 3.00	$ 3.00
Association General Fund	49.50	23.25
Foundation Assessment	7.50	3.75
Missouri State Medical Association Dues and Assessments	$ 60.00	$ 30.00
American Medical Association	70.00	70.00
Totals	$130.00	$100.00

Except for $18.75, the 1968 collections of $26,349.08 for the Missouri State Medical Foundation have been remitted along with $28.09 due from the year 1967. The $70 per member collected for the A.M.A. totaling $233,450.00 plus $140.00 from 1967 have been remitted.

Insurance policies were inspected and the following general insurance was in force at the close of the year:

Insurance on	*Type of Coverage*	*Amount*
Furniture and Fixtures	Fire and Extended Coverage (80% co-ins.)	$ 6,500
Employees	Workmen's Compensation	Statutory
Lessee's Liability	Bodily Injury	$25,000/$50,000
Treasurer	Fidelity Bond	$ 20,000
All Other Employees	Fidelity Bond	$ 10,000
Journal Publication	Publishers' Liability (2,500 deductible)	$500,000
Journal Publication	Advertisers' Libel (2,500 deductible)	$500,000
Automobiles of Executive Secretary and three assistants	Non-ownership—Bodily Injury	$100,000/$300,000
	Non-ownership—Property Damage	$ 25,000
Members and Auxiliary members on M.S.M.A. business	Travel Accident (away from home)	$25,000/$250,000

Subject to the comments thereon, the attached statements, in our opinion fairly present the financial position of the Missouri State Medical Association at December 31, 1968 and the result of the activities for the year then ended. The records were kept in a good accounting manner and in accordance with accepted principles of accounting applied on a basis consistent with that of the preceding year.

Yours very truly,
Lennertson & Co.
Certified Public Accountants

Exhibit A

Missouri State Medical Association Balance Sheet, December 31, 1968

Assets

Cash		
Mercantile Trust Company (Treasurer's Account)	$31,518.79	
Central Missouri Trust Company (Secretary's Account)	992.78	
Certificate of Deposit due June 15, 1969	15,000.00	
Petty Cash Fund	25.00	$ 47,536.57

Investments at Cost (Exhibit C-2)		
U. S. Government Bonds	$ 70,511.08	
Corporate Bonds	5,000.00	
Common Stocks	36,860.50	
Total (Market Value $119,284.85)		112,371.58
Accounts Receivable		
Advertisers	$ 5,089.84	
Mercantile Trust Company—Investment Custodian	1,279.26	6,369.10
Dues Receivable—Exhibit D (See Reserve—contra)		2,130.00
Furniture and Fixtures (at stated value)		1,000.00
Advances for Travel Expenses		464.56
		$169,871.81

Liabilities

Accounts Payable		
Supplies and Expenses	$ 3,979.63	
Payroll Taxes	2,228.18	
Due Missouri State Medical Foundation	18.75	$ 6,226.56
Deferred Credit to Income		
Advance Payments by Exhibitors for 1969 Meeting		6,867.50
Reserve for Uncollected Dues		2,130.00
Contingent Liability—One malpractice suit pending—$300		
Reserve for Future Activities		
Balance January 1, 1968	$144,690.91	
Excess of Income over Expenses for the year 1968—Exhibit B	9,956.84	154,647.75
		$169,871.81

Exhibit B

Missouri State Medical Association
Income Statement, for the Year 1968

Particulars	*General Activities*	*Journal Publication*	*Total*
Income			
Dues Received (including $3.00 per member annually for The Journal)	$173,499.67	$ 10,949.25	$184,448.92
Rentals—Annual Session Exhibit Space	10,800.00		10,800.00
Subscriptions to The Journal—Non-members		452.00	452.00
Advertising Space—The Journal		38,669.21	38,669.21
Investments—Interest and Dividends	7,077.47		7,077.47
Collection Fees on A.M.A. Dues	2,332.75		2,332.75
Collection Fees on Taxes Withheld	18.36		18.36
Total Income	$193,728.25	$ 50,070.46	$243,798.71
Expenses			
Salaries	$ 84,185.11	$ 10,526.54	$ 94,711.65
The Journal—Paper, Printing, etc.		35,266.54	35,266.54
Cash Discounts to Advertisers		191.88	191.88
Commission on Journal Advertising		4,839.67	4,839.67
Postage	2,681.42		2,681.42
Committee and Meeting Expense	49,272.21		49,272.21
Custodian Fees—Investments	285.53		285.53
Dues and Subscriptions	478.00		478.00
Employees' Pension Plan Contributions	10,192.35		10,192.35
Equipment Purchases, Rentals, and Repairs in Lieu of Depreciation	4,656.59	277.10	4,933.69
Insurance—Blue Cross	916.39	93.96	1,010.35
Insurance—General	527.50		527.50
Missouri State Medical Foundation	1,999.62		1,999.62
Office Rent and Light	6,553.87	632.35	7,186.22
Professional Fees	4,681.69	200.00	4,881.69
Stationery, Printing and Office Supplies	2,643.91		2,643.91
Student Awards	252.17		252.17
Taxes—Payroll and Personal Property	2,745.19	475.45	3,220.64
Telephone and Telegraph	4,598.89	140.31	4,739.20
Traveling Expenses—Executive Secretary and Assistants	4,527.63		4,527.63
Total Expenses	$181,198.07	$52,643.80	$233,841.87
Excess of Income or (Expenses)	$ 12,530.18	$(2,573.34)	$ 9,956.84

Exhibit C-1

Missouri State Medical Association
Statement of Committee and Meeting Expenses for the Year 1968

Annual Session		$16,517.82
Council Meetings and Councilors' Expenses		7,963.18
Delegates to A.M.A.		9,861.73
Public Service		9,876.82
Woman's Auxiliary		2,844.17
Committees:		
Alcoholism	$ 45.59	
Cancer	24.00	
Disaster Medical Care and National Defense	316.11	
Environmental Health	135.84	
Industrial Health	111.30	
Infant and Child Care	62.06	
Legislation	73.43	
Long Range Planning	36.95	
Maternal Welfare	35.54	
Medical Care Costs—Ad Hoc	387.81	
Medical Economics	434.67	
Medical Education and Hospitals	37.76	
Nursing and Paramedical	49.40	
Rural Health	133.06	
Scientific and Postgraduate Work	119.15	
Trauma	55.10	
Utilization Review	16.53	
Venereal Disease Control	134.19	2,208.49
Total		$49,272.21

Exhibit C-2

Missouri State Medical Association
Statement of Investments December 31, 1968

Description	*Bonds at Par*	*Cost*
U. S. Treasury 2½% Bond 6/15/69-64	$10,000.00	$ 10,000.00
U. S. Treasury 2½% Bond 3/15/70-65	10,000.00	10,000.00
U. S. Treasury 2½% Bond 3/15/71-66	5,500.00	5,500.00
U. S. Treasury 4 % Bond 10/ 1/69	25,000.00	25,004.40
U. S. Treasury 4¾% Bond 5/15/72	10,000.00	10,006.68
U. S. Treasury 5¾% Bond 11/15/74	10,000.00	10,000.00
Pacific Gas & Electric 4½% Bond 6/1/90	5,000.00	5,000.00
American Home Products Corp. 50 shares		3,006.88
Central & Southwestern Corp. 200 shares		6,345.62
Connecticut General Insurance Corp. 50 shares		3,025.24
Firestone Tire & Rubber Co. 70 shares		3,771.93
Johns Manville Corp. 100 shares		5,582.34
Morgan Guarantee Trust Co. of N. Y. 61 shares		5,161.93
Standard Oil of California 110 shares		5,031.19
Union Carbide Corp. 74 shares		4,935.37
Total		$112,371.58

Exhibit D-1

Missouri State Medical Association
Dues Receivable and Membership by Societies December 31, 1968

MEMBERSHIP

Societies	*Junior*	*Active*	*Honor*	*Total*	*Unpaid Dues*
Andrew		2	1	3	
Audrain		19	1	20	
Barton-Dade		7		7	
Benton			1	1	
Boone	30	135	4	169	$ 540.00
Buchanan	5	73	12	90	
Butler-Wayne-Ripley	3	37	1	41	
Callaway		14	2	16	
Gape Cirardeau	2	51	3	56	
Carter-Shannon		1		1	
Chariton-Macon-Monroe-Randolph		19	4	23	

Clay	9	60	1	70	
Clinton		5		5	
Cole	3	43	5	51	
Cooper		11		11	
Dallas-Hickory-Polk		7	2	9	
Dunklin		17	2	19	
Franklin-Gasconade-Warren		26		26	
Grand River		37	4	41	120.00
Greene	10	158	9	177	
Henry		7	2	9	
Howard		6		6	
Jackson	67	676	120	863	120.00
Jasper	4	57	5	66	
Jefferson	3	14	2	19	
Johnson		13	1	14	
Lafayette-Ray	2	21	2	25	
Lewis-Clark-Scotland		2		2	
Lincoln-St. Charles	6	41		47	
Marion-Ralls-Shelby		23	3	26	120.00
Mid-Missouri	7	21	2	30	
Miller		2		2	
Mineral Area	1	30	4	35	
Moniteau		3	1	4	
Montgomery		4		4	
Morgan		4		4	
North Central	1	9		10	60.00
Northwest Mo.		15	1	16	
Ozarks		36	6	42	
Pemiscot		11	1	12	
Perry-Ste. Genevieve		9	2	11	
Pettis		29	1	30	120.00
Pike		9	1	10	
Platte	2	6	1	9	
St. Louis City	133	1,179	94	1,406	1,050.00
St. Louis County	25	388	39	452	
Saline	1	11	2	14	
Semo	2	26	3	31	
South Central	1	17	3	21	
Webster		2		2	
West Central	4	30	6	40	
Totals	321	3,423	354	4,098	$2,130.00 (A)

(A) Delinquent dues of members at December 31, 1968 carried at the request of local Societies.

FINANCIAL STATEMENT FOR THE YEAR 1968

LENNERTSON & COMPANY

Certified Public Accountants

ST. LOUIS, MISSOURI 63105

January 27, 1969

Missouri State Medical Foundation
515 East High Street
Jefferson City, Mo. 65101

Gentlemen:

A review was made of the records of the Missouri State Medical Foundation, a non-profit Missouri corporation, for the year 1968. The Balance Sheet at December 31, 1968 is on a cash basis and the additions for the year are set forth in Exhibit A.

Recorded receipts for the year were traced in total into the bank account as deposits and paid checks were seen for the disbursements. A direct confirmation was received from the depositary in verification of the cash balances on deposit.

A summary of the loans to medical students follows:

Loans Receivable January 1, 1968	$234,004.81	
Loans made during the year	37,750.00	
Total	$271,754.81	
Less Loan Repayments	8,409.71	
Loans Receivable December 31, 1968		$263,345.10

Individual records of loans were reviewed and student loan contracts were inspected. The Foundation carried insurance on the lives of students to assure repayment of the loans in the event of death. Interest income on loans is recorded on a cash basis and the amount received in 1968 was $1,739.70. Accrued interest on outstanding loans at December 31, 1968 amounted to $17,087.97 and is not included in the loan balances in Exhibit A.

Interest received on the savings account and the certificate of deposit amounted to $1,114.05. The certificate of deposit due January 6, 1969 was renewed for six months and interest of $477.08 was received.

The Missouri State Medical Association paid expenses for the Foundation as follows:

State Registration Fee	$ 1.00
Professional Fees	400.00
Insurance Premiums	1,533.46
Printing	3.75
Meeting Expense	61.41
Total	$1,999.62

These amounts have not been recorded as receipts and disbursements on the records of the Foundation.

U. S. Treasury Department form 990A has been prepared for the year 1968 and is due for filing on May 15, 1969.

No opinion is expressed on the attached statement as it is on a cash basis and student loan balances were not verified by direct confirmations.

Yours very truly,
Lennertson & Co.
Certified Public Accountants

Exhibit A

MISSOURI STATE MEDICAL FOUNDATION
Balance Sheet (Cash Basis), December 31, 1968

Assets

Cash in Checking Account		$ 20,261.19
Savings Account		4,620.28
Certificate of Deposit, due Jan. 6, 1969		19,083.51
Loans Receivable from Medical Students		263,345.10
Total Assets		$307,310.08

Fund Reserve

Balance January 1, 1968		$275,991.41
Cash Additions for Year 1968		
Interest on Loans	$ 1,739.70	
Interest on Bank Deposits	1,114.05	
Contributions (see below)	2,106.50	
Assessment of Members—Active $7.50; Junior $3.75	26,358.42	
Total for year 1968		31,318.67
Total Reserve		$307,310.08

Contributions

Long's Drug Shop, Boonville, Mo.	$ 100.00
Boonville Medical Group, Boonville, Mo.	100.00
South Central County Medical Society, West Plains, Mo.	100.00
Katz Drug Company, Kansas City, Mo.	500.00
Woman's Auxiliary to M.S.M.A., Liberty, Mo.	100.00
Max S. Franklin, M.D., St. Louis, Mo.	100.00
Paul R. Whitener, M.D., St. Louis, Mo.	250.00
Albert D. Cross, M.D., Trenton, Mo.	100.00
West Central Medical Society, Nevada, Mo.	100.00
Roy W. Pearse, Jr., M.D., Nevada, Mo.	100.00
Skaggs Community Hospital Medical Staff, Branson, Mo.	100.00
Sub-total	$1,650.00
Contributions under $100 each	456.50
Total Contributions	$2,106.50

CLASSIFIED ADS

WANTED—General practitioner or pediatrician to join seven-man group. Salary for two years and then partnership. Wyeth Hamilin, M.D., The Hannibal Clinic, Hannibal, Mo. 63401.

GENERALISTS—Tired of the Solo Rat Race? Medical Arts Clinic in Farmington is expanding its general medicine services. Three minutes from a new hospital in Eastern Missouri's nicest small town. C. W. Chastain, M.D., Farmington, Mo. 63640.

OPPORTUNITY to develop group practice in busiest para-urban community in Kansas. New office building—hospital 20 blocks away. Surgeon and experienced GP already busy. Unlimited opportunity for additional physicians in all areas of practice. Contact Donald J. Smith, M.D., 8600 W. 95th, Overland Park, Kan. 66212.

PRACTICE FOR SALE—Stable, thriving midwestern town of 90,000. Excellent place to raise family. Excellent hunting and recreational facilities. Eleven-room, well-equipped office building in excellent repair. Wonderful opening for Internist or well-trained General Practitioner. Deceased GP practice has been $60,000 gross with time off. Reply promptly to Box 353, c/o Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

WANTED—General practitioner for staff physician on General Medical Service. Regular hours. Starting salary $14,409 to $19,771. Generous fringe benefits, including outstanding retirement program. Nondiscrimination in employment. For further information, contact Chief of Staff, Veterans Administration Hospital, Des Moines, Iowa 50309.

FOR SALE—Surgical instruments, office equipment, sterilizers, etc. Nothing priced higher than 25% of catalogue price. Physician retiring. Also, three or four room, air-conditioned office FOR RENT. Choice location in Fulton, Mo. Two colleges, two institutions, various factories and other industries. Fulton is located a short distance from U. S. Highway 70-40 between Kansas City and St. Louis. Contact Box 349, Missouri State Medical Association, 515 East High St., Jefferson City, Mo. 65101.

TWO INTERNISTS—Board eligible or certified, wanted by multi-specialty group in Central Texas associated with 100-bed hospital. $20,000-$24,000 annual salary; early partnership; no investment. Write G. H. Wahle, Jr., M.D., King's Daughters Clinic, Temple, Texas, or call collect, AC 817 778-5501.

WANTED—Obstetrician, Internist, Pediatrician or General Practitioner interested in these disciplines or interested in anesthesia to join six-man hospital-clinic group. Write V. W. Lehr, Administrator, Grim-Smith Hospital & Clinic, 112-201 E. Patterson, Kirksville, Mo. 63501.

WANTED: Associate or partner in general practice in Jefferson City, Mo., 30 miles from Missouri University Medical Center. A practice overwhelming after 2½ years. Net income, $35,000 to $45,000 annually. Building a new medical building with room for one or two associates to be completed September, 1968. If interested, pleace call Jefferson City, Area Code 314, 635-2542 or 635-6580.

FOR SALE—A real bargain price of only $55.00 for a new, complete set of surgical instruments for the removal of tonsils and adenoids. Consists of new Aloe chrome guillotine, retractor, knife, curette, adenotome, mouthgag and snare. Instruments have never been used. Write Box 352, c/o Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

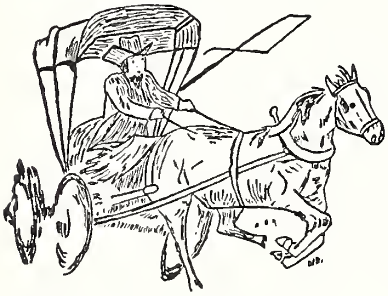
PATHOLOGY RESIDENCY—Openings available in 500-bed modern hospital; approved for four years in anatomic and clinical pathology; active school of medical technology; stipends as follows—$7,200 first year; $7,800, second year; $8,400, third year; $9,000, fourth year; additional $50 per month paid to married residents; furnished apartments provided married residents; meals while on duty; uniforms and uniform laundry also provided. Contact Director of Laboratories, Research Hospital and Medical Center, Meyer at Prospect, Kansas City, Mo. 64132.

MADE YOUR RESERVATIONS?
To Attend the
MSMA
111th ANNUAL SESSION
March 20-23, 1969
Chase-Park Plaza Hotel St. Louis

Buy
U.S. Savings Bonds

LEO H. POLLOCK, M.D.

Missouri Medicine in Review



FORTY YEARS AGO

Motion pictures of an operation on the heart were shown by Dr. Duff Allen, Associate Professor of Surgery at Washington University, on Dec. 27, 1928 at a convention of the Phi Beta Pi, national medical fraternity, in St. Louis. The operation was performed by Dr. Allen with the aid of the cardioscope in 1924 and was the third successful heart operation of that type in medical history.

A gift of $150,000 was presented to the Jewish Hospital of St. Louis by Mr. and Mrs. Mark C. Steinberg for construction of a building for the care of chronic invalids. The new structure will be erected near the main hospital building and will be the third auxiliary building of the group under construction this year through donations from individuals.

Arrangements for the 72nd Annual Session of the Missouri State Medical Association to be held in Springfield on May 13-16 are progressing with every prospect of a large attendance and ample facilities for a pleasant and profitable visit for every member. All meetings will be held in the Kentwood Arms Hotel. Members of the General Committee on Arrangements are Drs. W. M. West, Monett, Chairman; J. C. B. Davis, Willow Springs; and Robert M. James, Joplin.

TWENTY-FIVE YEARS AGO

Lt. Col. Edward H. Hashinger, Kansas City, recently returned from North Africa where he was the medical director of the 77th Evacuation Hospital Unit.—Lt. Col. William J. Shaw, Fayette, Division Surgeon of the 41st Division of the U. S. Army in Australia, has been awarded the Legion of Merit decoration for outstanding service in New Guinea from March 1 to July 15, 1943.

The Barry-Lawrence-Stone County Medical Society met on December 14 at the Barry County Hospital in Cassville. The following officers were elected: Drs. W. A. Kenneth Glover, Mount Vernon, President; Lewis H. Ferguson, Monett, Vice-President; George W. Newman, Cassville, Secretary-Treasurer; George W. Newman and Frank T. Kerr, Monett, Delegates. It was decided to run full-page advertisements in three county newspapers against the Wagner-Murray-Dingell bills, as suggested by the National Physicians Committee.

The Ste. Genevieve County Medical Society met on December 15 and elected the following officers: Drs. A. E. Sexauer, Ste. Genevieve, President; C. J. Clapsaddle, Vice-President; Robert W. Lanning, Ste. Genevieve, Secretary-Treasurer.

The Dallas-Hickory-Polk County Society met in the office of Dr. A. S. Johnston, Wheatland. Officers elected were Drs. R. C. Nevins, Humansville, President; G. C. Plummer, Buffalo, Vice-President; D. C. McCraw, Bolivar, Secretary-Treasurer.

TEN YEARS AGO

Approximately 300 people, including doctors, their wives and guests, attended the St. Louis Medical Society's annual installation of officers on January 6. For the first time in many years, a general practitioner received the high honor of being installed as president of the largest component society of the Missouri State Medical Association. Dr. Robert B. Bassett was presented the gavel by retiring President, A. W. Neilson, M.D.

On January 6, Supervisor James H. McNary announced the appointment of John C. Murphy, M.D., St. Louis, as acting health commissioner of St. Louis County.

The Missouri State Surgical Society takes pleasure in announcing its Second Annual Lectureship. The guest speaker for this second annual meeting will be Dr. Alton Ochsner, Professor of Surgery, Tulane University. His subject will be "Ulcerating Lesions of the Stomach and Duodenum." The meeting will be held on the third floor of the Kansas City Club on April 6, 1959.

On December 30, the McCune-Brooks Hospital received a $10,000 gift on behalf of Jules B. Van Urk, M.D., of Carthage from two of his friends and patients, Commander and Mrs. Harold E. M. Thompson, also of Carthage.

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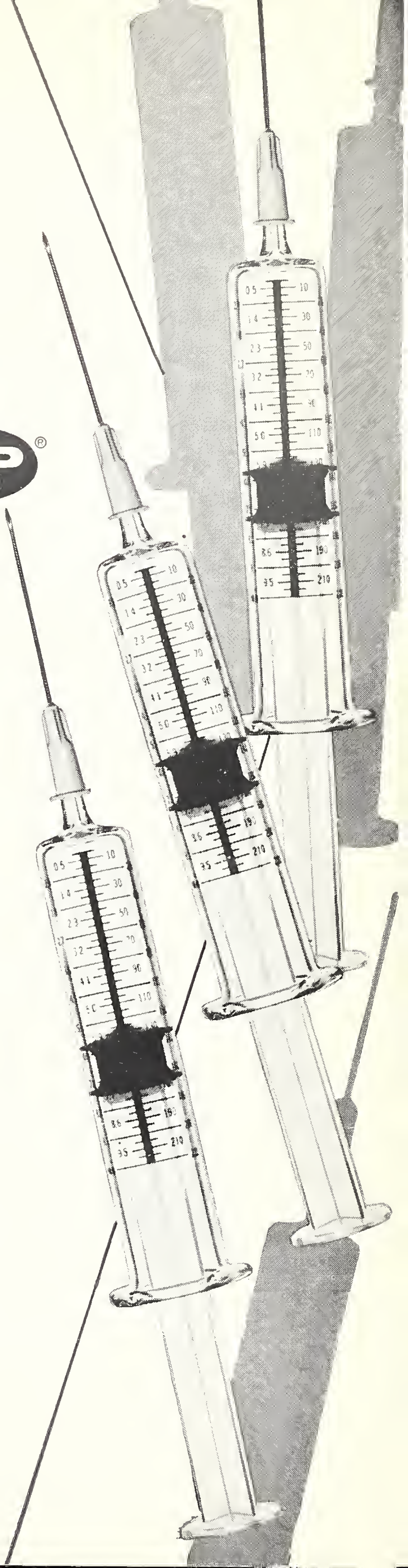

Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Dr. Fisher Named MSMA President-Elect

Dr. McCraw Is Installed As MSMA President March 22

Joseph L. Fisher, M.D., St. Joseph, was named president-elect of the Missouri State Medical Association during the final session of the House of Delegates at the 111th Annual Session Sunday morning, March 23rd at Hotel Chase, St. Louis.

Dr. Fisher, a specialist in radiology, will take office as president of MSMA next year, succeeding Doyle C. McCraw, Bolivar, who was installed as president at the annual banquet Saturday night, March 22nd.

Dr. Fisher, who was born in Urich, Mo., is a graduate of Central Missouri State College, Warrensburg. He attended medical school at the University of Missouri-Columbia and received his M.D. Degree from Washington University, St. Louis in 1938. He interned at DePaul and Barnes Hospital in St. Louis and served his residency at Columbia University Hospitals in New York.

The state association's president-elect is a former president of the Buchanan County Medical Society. He has served the past year as Chairman of the MSMA Council.

Dr. and Mrs. Fisher have two children and live at 2903 Ashland in St. Joseph.

Dr. McCraw Installed President

The new president of MSMA, Doyle C. McCraw, M.D., is a General Practitioner in the southwest Missouri city of Bolivar. A native of Purdy, Mo., he graduated from the University of Missouri, Columbia, and received his M.D. Degree from St. Louis University. He served his internship at St. Louis City Hospital and St. Mary's Hospital in East St. Louis, Ill.

Active in both medical and civic affairs, Dr. McCraw is a former president of the Dallas-Hickory-Polk County Medical Society as well as a former president of the Missouri Academy of General Practice. He is the first man to head both the State Association and the State AGP in Missouri.

Dr. McCraw is a former mayor of Bolivar, having served three terms in that post. He recently was a member of the Advisory Committee on Medical Manpower (the Olson Committee) for the Missouri Commission on Higher Education.

Active in private practice in Bolivar since 1931, Dr. McCraw is a member of a three-man physician partnership. Dr. and Mrs. McCraw have three children.

MSMA
News

Dr. E. C. Ernst Dies

Dr. Edwin C. Ernst, M.D., St. Louis, a radiologist and internationally acclaimed authority on radium treatment of cancer, died March 13 of a heart ailment at St. Joseph Hospital, Kirkwood. He was 83 years old.

Dr. Ernst, at the time of his death, was president of the Missouri State Medical Association's 50-Year Club.

Joseph L. Fisher, M.D.
President-Elect

Foundation Loans Made To 225 Medical Students

The Missouri State Medical Foundation has provided loans totaling approximately $290,000 to 225 Missouri medical students since 1960, it was announced in St. Louis March 21 by Paul R. Whitener, M.D., St. Louis, Foundation president.

The Foundation, a non-profit organization, is primarily financed by members of the Missouri State Medical Association. Dr. Whitener made his announcement during the 111th Annual Meeting of the State Association at the Hotel Chase in St. Louis.

Dr. Whitener pointed out that "Missouri physicians, through the loan program, are making a substantial contribution to the effort to provide more doctors for our state. Members of our organization will assess themselves more than $40,000 this year alone to provide new funds for the loan program."

1969 Legislative Session Nears Half-Way Mark

The 1969 session of the Missouri General Assembly drew near the half way mark late in March with a tremendous amount of proposed legislation to be considered.

The Senate closed off the introduction of bills on February 27 with a total of 391 measures in the legislative hopper. A week later the House followed suit after 970 bills had been introduced.

The following is the status of some of the bills of interest to the medical profession as of March 15th:

House Committee Substitute for House Bill 16 which includes $150,000 in emergency planning funds for the proposed medical school at the University of Missouri-Kansas City has been passed by the House and awaits a hearing in the Senate Appropriations Committee.

House Bill 39 provides for the registration of physical therapists under the Board of Registration for the Healing Arts. Bill approved by House, awaiting a hearing in the Senate Public Health Committee.

House Bill 40 provides for mandatory reporting by physicians and others of suspected child abuse. Bill approved by House, awaits a hearing in Senate Public Health Committee.

House Bill 85 would make various changes in the chiropractic act. Bill has been approved by the House Public Health Committee with two committee amendments. It awaits action by the House.

Senate Bill 43 would authorize the gift of all or part of a human body after death for specified persons. Approved by Senate, awaiting hearing in House Public Health Committee. House Bill 69, same as Senate Bill 43, has been heard by House Judiciary Committee.

House Bill 239 makes changes in the present driver blood test law by lowering breaking point of presumption of intoxication to 10/100 of 1% and by basing weight of alcohol in blood upon milligrams of alcohol per 100 milliliters of blood. Has been heard by House Judiciary Committee. Senate Bill 181 which includes only the weight definition change has been heard by the Senate Criminal Jurisprudence Committee.

House Bill 381 provides that physicians and nurses who in good faith render emergency care at scene of an emergency shall not be liable for any civil damages. Bill awaits hearing in House Judiciary Committee. House Bill 740, a broader version of the bill which says anyone may render emergency care in good faith without liability awaits a hearing in the Civil and Criminal Procedure Committee of the House.

House Bill 341 provides for a system of medicolegal examiners. Bill, with two committee amendments, has been approved by House Government Organizations Committee. Awaits House action. Senate Bill 146 on same subject awaits hearing in Senate State Departments Committee.

Senate Bill 206 provides for therapeutic abortion under certain circumstances. Proponents have been heard by Senate Criminal Jurisprudence Committee. Opponents will be heard.

House Bill 475 provides that the procurement, processing, distribution or use of whole blood, plasma, blood products and blood derivatives for purposes of injecting or transfusing shall not be a sale. A House Public Health Committee substitute bill adds bones, corneas and organs to the list of items exempted. Substitute is awaiting action on the House floor.

House Bill 581 would authorize the state to contract with the private medical and osteopathic schools to train an increased number of Missouri residents. Hearing has been held in House Education Committee.

The following bills were introduced after the last edition of MISSOURI MEDICINE went to press:

House Bill 620 and Senate Bill 270 provide for a change in the statutes of limitations concerning malpractice. Bill would add provision that action for malpractice must be brought within two years after the date malpractice became known, if this date is later than the date of the act.

The House bill awaits a hearing in the Civil and Criminal Procedure Committee and the Senate bill awaits a hearing in the Judiciary Committee.

Senate Bills 204 and 275 would bring non profit health service corporations such as Blue Cross and Blue Shield under regulation of the insurance department with a two per cent gross receipts tax. Both bills are in the Senate Insurance Committee where proponents have been heard and opponents will have a hearing. House Bill 557, same as Senate bill 204, awaits hearing in House Insurance Committee.

Senate Bill 389 would require medical laboratories except those exempted to secure a license to operate from the Board of Health. Laboratories operated by physician only as adjuncts to their own practice and which do not take referral work are exempted under terms of the bill. Bill awaits hearing in the Senate Public Health Committee.

Two Are Elected To Missouri House

Two new legislators have been elected to fill the unexpired terms of deceased members of the Missouri House.

Alex A. Fazzino, 44, a Democrat of Kansas City, was elected in the First District to fill the unexpired term of the late Frank Mazucca, also a Democrat. Rep. Mazucca died early in January.

Vincent I. Kelly, also a Democrat, will fill the unexpired term of the late Rep. Richard H. Aplebaum in the 34th District of St. Louis County which includes parts of Midland, Creve Coeur and Normandy townships in the St. Louis area.

1968-1969 at the University of Missouri-Columbia Medical Center

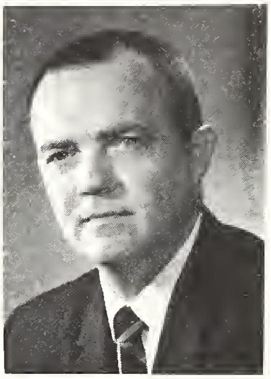
A Review

WILLIAM D. MAYER, M.D., Dean and Director

A UNIVERSITY MEDICAL CENTER tends to reflect the changes which occur in health care, medical education and biomedical research. In that 1968-1969 was characterized by an extremely rapid rate of change in all three areas, it is impossible to present even in outline form in the space permitted all of the changes which have occurred in the 12 months since publication of the April, 1968 University of Missouri Medical Center special issue of MISSOURI MEDICINE. Indeed, I continue to marvel at the dynamic nature of our profession and of our Medical Center. Since it would be difficult to recount for you all of the significant changes which have occurred in this intervening year, I have elected to select those issues which might have the greatest interest to the reading audience of MISSOURI MEDICINE.

ADMINISTRATIVE CHANGES

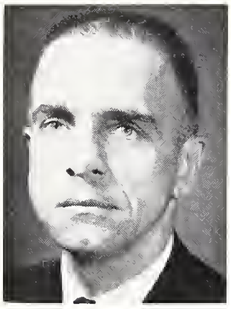
On July 1, 1968, Vernon E. Wilson, M.D., who until 1967 was Dean and Director of the University Medical Center and the following year was Executive Director for Health Affairs, was promoted to the position of Vice-President for Academic Affairs of the University of Missouri. In his new position, Dr. Wilson is responsible for the coordination and long-range planning of the undergraduate, graduate and professional education programs of the four campuses of the University. With the retirement this year of Dr. Raymond C. Peck, Vice-President for Research and Graduate Studies, Dr. Wilson's new office also will assume responsibility for research affairs on the four campuses of the University. Those of us in the Medical Center who have had the good fortune to work with Dr. Wilson through the years have had a somewhat schizophrenic response to his new appointment. As members of the medical profession, we have regretted the decrease in his involvement in medical affairs which resulted from his added responsibilities, but as members of the University "family," we have been delighted that his remarkable talents have become available to the institution at large.


Dr. Mayer

During this past year, two new departmental chairmen have been appointed within the School of Medicine. Effective Sept. 1, 1968, Dr. Owen J. Koeppe became the chairman of the Department of Biochemistry. Dr. Koeppe's assumption of the administrative responsibilities for the department have permitted Dr. Thomas D. Luckey, who had been chairman since 1954, to devote his full time to teaching and research, as he requested. Dr. Koeppe joined the faculty here in 1955. His primary research interest is in the biosynthesis of proteins and peptides; currently, he is studying the properties of the enzymes of the body which are involved in the change of certain toxic acids to forms which can more readily be excreted.

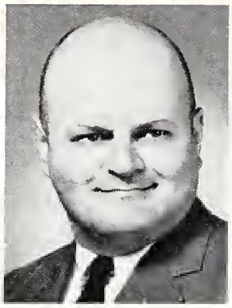
Dr. Koeppe received his M.S. and Ph.D. degrees from the University of Illinois. As a faculty member at Missouri, he has been an active member of the education committee of the School of Medicine and a member of the University Faculty Council.

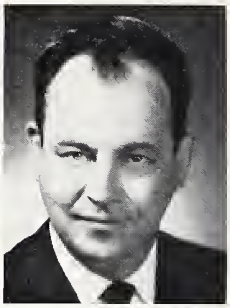
Effective Jan. 1, 1969, Dr. Charles E. Mengel was appointed professor and chairman of the Department of Medicine. Dr. Mengel received his M.D. degree from Johns Hopkins School of Medicine in 1957. After an internship at the Johns Hopkins Hospital and two years as a clinical associate at the National Cancer Institute, he completed his residency under Dr. Eugene


Dr. Koeppe

Dr. Mengel

Dr. Rosenholtz


Dr. Culley


Dr. Allen

Stead at Duke University Hospital. In 1965, following a brief span on the faculty at Duke, he was appointed to the Charles A. Doan Chair of Medicine at Ohio State. A Markle Scholar in academic medicine, he also is a fellow of American College of Physicians, secretary-treasurer of the Midwest Section of the American Federation of Clinical Research and a member of several other national and regional professional medical organizations. He is editor of *Textbook of Hematology* to be published this year and is author or co-author of 70 scientific papers.

Also on Jan. 1, 1969, Dr. Mitchell J. Rosenholtz was appointed associate professor of pathology and Assistant Dean for Student Affairs. In addition to his responsibilities in student counseling, he will assume the chairmanship of the critically important Admissions Committee of the School of Medicine. Dr. Rosenholtz received his baccalaureate degree from Harvard College and his M.D. from the University of Minnesota. Following residency training in pathology at Minnesota, he joined the faculty of the University of Maryland where, in addition to his responsibilities in the Department of Pathology, he also served as Assistant Dean for Student Affairs for the past three and one-half years.

Effective July 1, 1968, Dr. Thomas S. Culley, assistant professor of surgery (orthopedics), in addition to his obligations in the Department of Surgery, assumed the position as Assistant Medical Director of the University Medical Center. Formerly chief of orthopedic surgery at the USAF Hospital at Keesler AFB, Ala., Dr. Culley has been on the faculty of the School of Medicine since 1965. In his capacity as the Assistant Medical Director, he joins Dr. William C. Allen in assuming administrative responsibilities in patient care for the Medical Center. I hope that all physicians in the state will feel free to contact either Dr. Culley or Dr. Allen concerning any suggestions they may have relative to mechanisms by which we can improve our service to the physicians of the state.

Along with other gains in faculty in 1968-1969, there were, of course, the inevitable losses which occur in the extremely tight market for medical academicians. Three of our outstanding faculty members were recruited to become departmental chairmen in other schools. Dr. Theodore M. King, assistant professor of obstetrics-gynecology and physiology here since 1965, became chairman of the Department of Obstetrics and Gynecology at Albany (N. Y.) Medical College, and Dr. Arch W. Templeton, professor of radiology, became chairman of that department at the University of Kansas School of Medicine. Dr. James Mackenzie, our chief of thoracic and cardiovascular surgery, will go to Rutgers University on July 1 to become chairman of the Department of Surgery in that institution's expanding medical school.

BUILDING PROGRAM

By the time this article goes to press, it is anticipated that we will have taken occupancy of the addition to the Medical Science Building which is in its final stages of construction. In addition to the space which is being rented to the Ecology Field Station of the Public Health Service, located in Columbia, and a modest amount of new office space for faculty, this new addition will house the multidisciplinary laboratories for the first- and second-year medical student classes. These facilities will provide the most modern type of instruction to our medical students in their first two years. The 16-student modular construction will permit the kind of small group instruction which we feel ought to characterize medical education. In anticipation of the opening of these laboratories (originally scheduled for September, 1968), we expanded our entering class to 100 medical students. Additional comments on this expansion will be made below.

The 480-bed Veterans Administration Hospital continues under construction immediately across Stadium Road from the University Medical Center. It is anticipated that this facility, which will contain 240 general medical-surgical beds and 240 neuropsychiatric beds, will be completed in 1970. We expect this important health care facility, which will be all-weather connected by an underground tunnel to the University Medical Center, to become an intimate part of our activities.

During this past year, the Mid-Missouri Mental Health Center, which was constructed by the Division of Mental Diseases and connected to the west end of the University Hospital, became fully operational at its 120-bed capacity. Effective working relationships with this unit have been developed, not only through our Department of Psychiatry but through many other departments as well.

During this past year, plans have been developed for an eight-story, $7.6 million building to house a new Outpatient Clinic and the School of Nursing. A request has been made to the state by the University for $3.4 million in capital monies to assist in the construction of this much needed facility. Already, $250,000 has been pledged by the Missouri Lions Clubs toward construction of the eye clinic section. Additional funds are in grants from appropriate federal agencies which will be dependent upon the availability of the state dollars.

The original Outpatient Clinic, which was designed to cope with 35,000 to 45,000 outpatient visits per year, has become extremely inadequate to meet the current clinic activities. Last year, we recorded more than 78,000 patient visits, and this year records indicate that there will probably be more than 90,000 patient visits. With the expansion of the entering class to 100 students, a new facility is critically needed to carry out the educational activities of our student body in this vital area of ambulatory care.

The School of Nursing, which has been housed in grossly overcrowded facilities for several years, has been forced because of this to limit enrollment far below the number of qualified high school students who are applying. The planned new building would permit expansion of the undergraduate degree program in this important health personnel shortage area and, in addition, enable us to significantly expand our master's level graduate program in nursing so we can train teachers for vitally needed nursing programs throughout the state.

New and Expanded Programs

As mentioned above, by virtue of the new multidisciplinary laboratories, we were able to expand our entering medical school enrollment in September of 1968. Our number of applicants continues to grow in both quantity and quality. The current freshman class was selected from approximately 900 applicants; this year, more than 1,000 students already have applied for entrance in the class commencing in September of 1969. As many of you are painfully aware, we are now forced into a position of turning down for admission many students who are quite adequately prepared to study Medicine. During this past year, following an intensive study carried out by Dr. Stanley B. Olsen, the State Commission on Higher Education recommended increasing the number of Missouri graduates by at least 100 per year. Subsequently, the Commission recommended that a new medical school be de-

A nighttime view of the University of Missouri-Columbia Medical Center on Stadium Road. The new 480-bed Veterans Administration Hospital is now under construction immediately across Stadium Road on the site of the parking lot shown here.

veloped under the University's auspices in Kansas City. The University, in turn, has requested of the state legislature $150,000 in planning funds for the current year in order to take initial steps in the development of this much needed second medical school within the University of Missouri.

In addition to our expansion in the School of Medicine and our proposed expansion in the School of Nursing, we have been able during this past year to enlarge our programs in health related areas in the Graduate School, as well as in allied health sciences.

During the current year, there are 167 students enrolled for graduate degrees in biomedical sciences, public health and health services management.

Enrollment in allied health sciences has increased by more than 35% over the previous year with total enrollment now at about 200 students. These programs include students in physical therapy, medical technology, radiologic technology and new baccalaureate programs in inhalation therapy and occupational therapy. Although the degrees in these programs are offered through the College of Education, all the students take the clinical part of their training at the University Medical Center.

The University Medical Center within this past year, through a grant from the Missouri Division of Traffic Safety and the U. S. Department of Transportation and its National Highway Safety Bureau, also initiated an Emergency Medical Services training program. This program, which has been established through cooperation with the Medical Center, provides advanced training for ambulance attendants, law enforcement personnel, firemen and many other persons throughout Missouri who have need of such training. The program not only includes training within the Medical Center but, also, training in out-state communities. Individuals interested in this program should contact Dr. Frank Mitchell, assistant professor of surgery, who is one of the co-directors of the Emergency Medical Services Program.

Through the Department of Pathology, the Medical Center has continued its involvement in international health affairs. Under the auspices of the American Medical Association and through a contract with the U. S. Agency for International Development, the Department of Pathology has continued its assistance in the development of the School of Medicine of the University of Saigon. In recognition of their activities, Dr. Le Minh Tri, Minister of Education of South Vietnam, was in Columbia on December 11, 1968 to present a medal and citation from the Vietnamese government to Dr. Fred V. Lucas, chairman of the department. It was with great remorse that we in the Medical Center learned of Dr. Tri's untimely assassination only three weeks later on his return to Vietnam.

A grant from the Missouri Regional Medical Program enabled us to inaugurate a "Telecture" continuing education program to 19 Missouri communities this past year. This telephone network has permitted our faculty to present programs to physicians and nurses in these communities throughout the state. The reception of these network programs has been quite good. There is a current grant request with the Regional Medical Programs in Washington to enable us to not only continue, but to expand this program during this coming year. We also have continued to expand our other programs in continuing education in an attempt to meet our strong feeling of obligation in education for the practicing health professionals of the state. We will continue to expand these programs as rapidly as we possibly can.

Student-Faculty Development

As most of you are aware, on college campuses throughout the nation strong expressions have developed by students and faculty alike in their desire to have a more significant role in the affairs of the institutions of higher learning. The university medical centers of the country also have felt the impact of these drives. While on many other campuses these activities occasionally have become destructive, we have been fortunate on this campus that this has not been the case.

During this last year, we have been particularly *fortunate* in the University Medical Center to have the development of two extremely constructive advisory groups.

A Student Executive Committee was established this year. It is made up of the presidents of each class, the four officers of the Student American Medical Association, four elected class Student Executive Committee representatives and the chairman of the student Honor Council. The current president of the S.E.C. is John Mihalevich, a third-year student from Crocker, Mo., who also is president of the Student American Medical Association chapter. During its first year, the S.E.C. has actively become involved in curricular review both at an institutional and departmental level. They also have developed a "big brother" program to aid entering freshmen in their orientation and have inaugurated another program to advise "disadvantaged" students about opportunities in health careers.

In addition, a Faculty Advisory Committee was established. Dr. Harry Stoeckle, associate professor of pediatrics, was elected chairman of this important group comprised of elected representatives from each academic department.

I look forward in the coming year to an effective and productive interrelationship with these two groups and feel that their creation has constituted two of the more important happenings of 1968-1969.

In conclusion, let me again simply say, as I did at the outset, that I have scarcely been able to scratch the surface of the multiple activities of this past year in the University of Missouri-Columbia Medical Center. For its Dean and Director, it has been a challenging, busy and exciting year. I also feel that it has been an extremely productive one as our academic and nonacademic staff have attempted to meet the many educational, research and patient care responsibilities with which they have been presented. I, personally, am extremely proud of the accomplishments of the staff during this past year. If we have fallen short of your expectations in any way, I can assure you that it is not because we have not tried. Please let me hear from you if you feel there are specific needs for improvement, for it is only with your continued advice, counsel and support that we can serve the purpose to which we are all dedicated—the health needs of the citizens of the state of Missouri.

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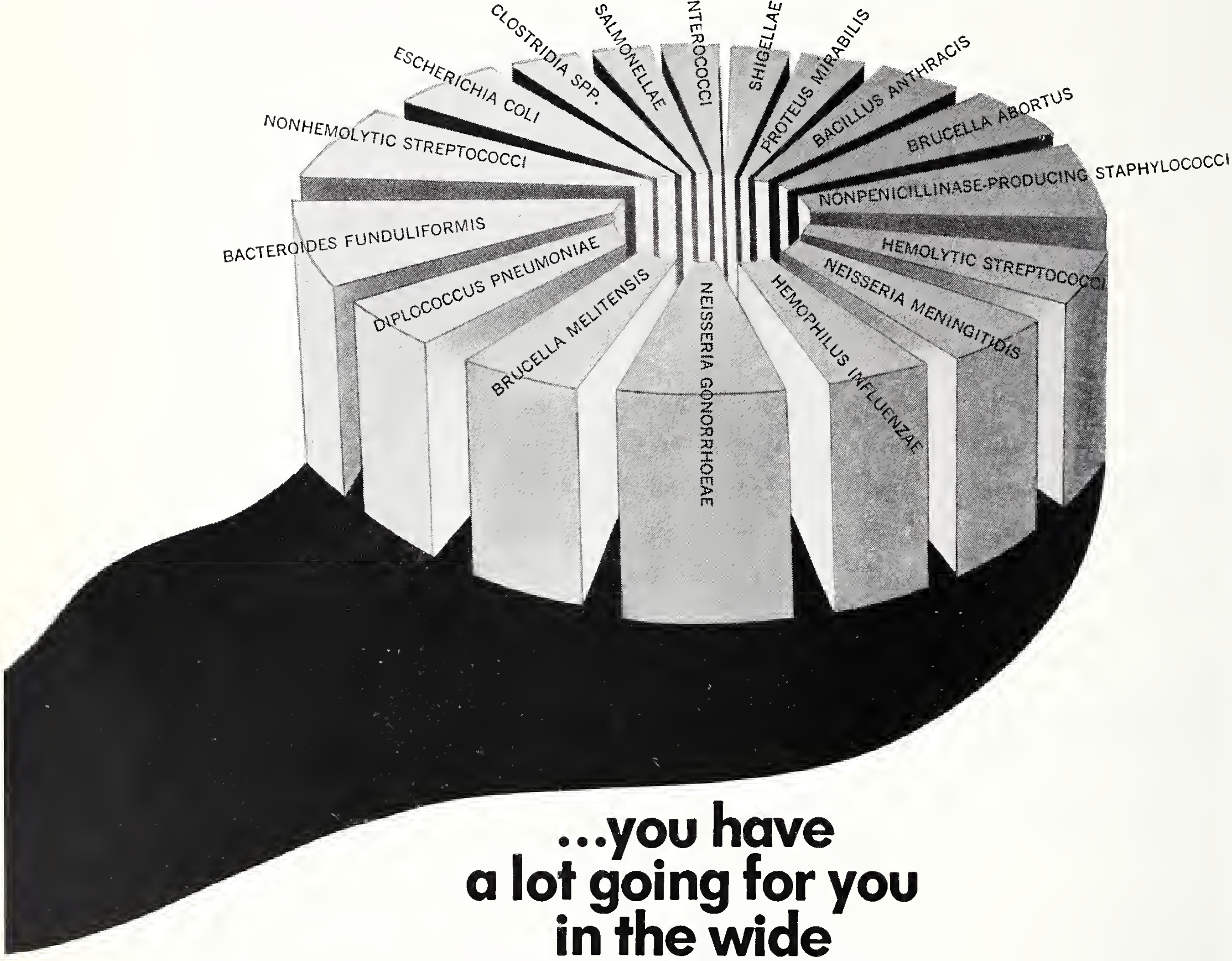
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HEMOPHILUS INFLUENZAE
NEISSERIA GONORRHOEAE
BRUCELLA MELITENSIS
DIPLOCOCCUS PNEUMONIAE

...you have a lot going for you in the wide range of bacterial infections.

PRESCRIBING INFORMATION. For complete information consult Official Package Circular. **Indications:** Infections due to susceptible strains of Gram-negative bacteria (including Shigellae, *S. typhosa* and other Salmonellae, *E. coli, H. influenzae, P. mirabilis, N. gonorrhoeae* and *N. meningitidis*) and Gram-positive bacteria (including streptococci, pneumococci and nonpenicillinase-producing staphylococci). **Contraindications:** A history of allergic reactions to penicillins or cephalosporins and infections due to penicillinase-producing organisms. **Precautions.** Typical penicillin-allergic reactions may occur, especially in hypersensitive patients. Mycotic or bacterial superinfections may occur. Experience in newborn and premature infants is limited and caution should be used in treatment, with frequent organ function evaluations. Safety for use in pregnancy is not established. In gonorrheal therapy, serologic tests for syphilis should be performed initially and monthly for 4 months. Assess renal, hepatic and hematopoietic function intermittently during long-term therapy. **Adverse Reactions:** Skin rash, pruritus, urticaria, nausea, vomiting, diarrhea and anaphylactic reactions. Mild transient elevations of SGOT or SGPT have been noted. Black tongue has been noted in some patients receiving the Chewable Tablets. **Usual Dosage:** Adults—250 or 500 mg. q. 6 h. (according to infection site and offending organisms). Children—50-100 mg./Kg./day in 3 to 4 divided doses (depending on infection site and offending organisms). Bacterial meningitis —150-200 mg./Kg./day in 6 to 8 divided doses. Children weighing more than 20 Kg. should be given an adult dose when prescribing orally. In parenteral administration, children weighing more than 40 Kg. should be given an adult dose. Beta-hemolytic streptococcal infections should be treated for at least 10 days. **Supplied:** Capsules—250 mg. in bottles of 24 and 100. 500 mg. in bottles of 16 and 100. For Oral Suspension—125 mg./5 ml. in 60, 80 and 150 ml. bottles. 250 mg./5 ml. in 80 and 150 ml. bottles. Chewable Tablets—125 mg. in bottles of 40. Injectable—for I.M./I.V. use—vials of 125 mg., 250 mg., 500 mg., and 1 Gm. Pediatric Drops—100 mg./ml. in 20 ml. bottles.

11-1/2/69 **A.H.F.S. Category 8:12.16**

Polycillin®
(ampicillin trihydrate)

BRISTOL LABORATORIES
Division of Bristol-Myers Co.
Syracuse, New York 13201

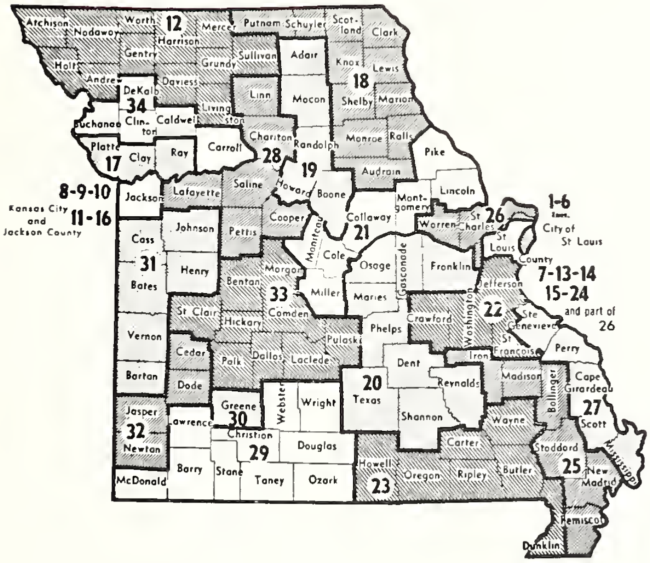
BRISTOL

The penicillin you use like a broad-spectrum antibiotic

1969 Missouri Legislative Directory

75th GENERAL ASSEMBLY

(Unofficial)


Atchison
Nodaway
Worth
12
Harrison
Mercer
Putnam
Schuyler
Scotland
Clark
Holt
Gentry
Grundy
Sullivan
Adair
Knox
Lewis
Andrew
Daviess
18
DeKalb
34
Linn
Macon
Shelby
Marion
Buchanan
Clinton
Caldwell
Livingston
Chariton
Randolph
Monroe
Ralls
Platte
17
Clay
Ray
Carroll
28
19
Pike
Audrain
8-9-10
Kansas City and Jackson County
11-16
Jackson
Lafayette
Saline
Howard
Boone
Montgomery
Lincoln
1-6
City of St Louis
Cass
Johnson
Pettis
Cooper
Callaway
21
Warren
St Charles
26
St Louis County
31
Bates
Henry
Moniteau
Cole
Osage
Gasconade
Franklin
7-13-14
15-24
and part of 26
Benton
Morgan
33
Miller
Maries
Jefferson
22
Vernon
St Clair
Hickory
Camden
Crawford
Washington
Ste Genevieve
Pulaski
Phelps
St Francois
Perry
Cedar
Polk
Dallas
Laclede
Iron
Barton
Dade
Dent
Reynolds
Madison
Cape Girardeau
20
Texas
Bollinger
Jasper
Greene
30
Webster
Wright
27
Scott
Lawrence
Shannon
Wayne
32
Christian
Douglas
Carter
Stoddard
Newton
29
Mississippi
McDonald
Barry
Stone
Taney
Ozark
Howell
Oregon
Ripley
Butler
25
New Madrid
23
Pemiscot
Dunklin

The 34 SENATORIAL DISTRICTS of Missouri

The new 26th District includes part of St. Louis County—all of St. Charles and Warren Counties—and Boles and Calvery townships in Franklin County.

STATE SENATORS

(Address—Senate Post Office, Jefferson City, Mo. 65101)

OFFICERS

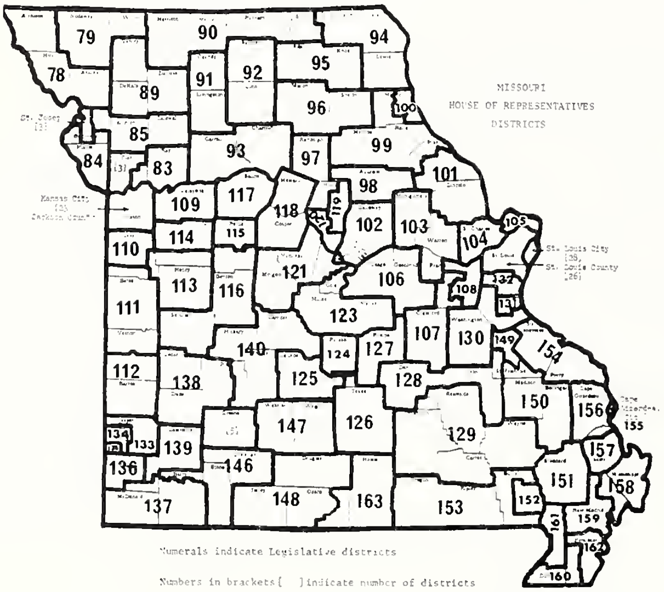
President	***Lt. Gov. Wm. S. Morris**
President Pro Tem	**Earl R. Blackwell**
Majority Floor Leader	**A. Basey Vanlandingham**
Minority Floor Leader	**Clifford Jones**
Secretary	**Theodore D. McNeal**
Caucus Chairman	**Richard Southern**
Minority Caucus Leader	**Richard Webster**

* By virtue of his office the Lieutenant Governor automatically becomes President of the Senate.

Dist.	*Pol.*	*Name*	*Address*
1	(D)	Robert Pentland	6429 Gravois, St. Louis 63116
2	(D)	John W. Joynt	3438 Russell Blvd., St. Louis 63104
3	(D)	Lawrence J. Lee	9 Arundel, St. Louis 63105
4	(D)	Theodore D. McNeal	4772 Palm St., St. Louis 63115
5	(D)	Raymond Howard	200 Mansion House Ct., St. Louis 63102
6	(D)	Edward Linehan	5322 Emily, St. Louis 63107
7	(R)	A. Clifford Jones	9 Clermont Lane, Ladue 63124
8	(D)	Donald L. Manford	9409 Oakland, Kansas City 64138
9	(D)	Edgar J. Keating	314 Norton, Kansas City 64124
10	(R)	Lem T. Jones, Jr.	1235 W. 71st Terrace, Kansas City 64114
11	(D)	Jasper M. Brancato	601 W. 12th, Kansas City 64116
12	(R)	Ronald L. Somerville	1424 Forrest Dr., Chillicothe 64601
13	(D)	Maurice Schechter	41 Country Fair Lane, Creve Coeur 63141
14	(R)	Robert L. Prange	12714 Bellefontaine Rd., St. Louis 63138
15	(D)	John J. Johnson	11001 Patrina Ct., Affton 63126
16	(D)	Jack E. Gant	9517 E. 29th, Independence 64052
17	(D)	William B. Waters	1st Nat'l Bank Bldg., Liberty 64068

(File This Directory for Future Reference)

Dist.	*Pol.*	*Name*	*Address*
18	(D)	Richard Southern	511 N. Chestnut, Monroe City 63456
19	(D)	A. Basey Vanlandingham	12 Glenview Plaza, Columbia 65201
20	(R)	Don Owens	374 S. Bernhardt, Gerald 63037
21	(D)	Omer H. Avery	775 Cap-au-Gris, Troy 63379
22	(D)	Earl R. Blackwell	Hillsboro 63050
23	(D)	Nelson B. Tinnin	Hornersville 63855
24	(D)	Robert A. Young	3500 Adie Rd., St. Ann 63074
25	(D)	J. F. Patterson	112 W. 18th St., Caruthersville 63830
26	(R)	Edward Stone, Jr.	53 River Bend Ct., Chesterfield 63017
27	(D)	A. M. Spradling, Jr.	225 Keller, Cape Girardeau 63701
28	(R)	John C. Ryan	Route 3, Sedalia 65301
29	(R)	William Noel Cox	Ozark 65721
30	(R)	Jack Curtis	1324 E. Loren, Springfield 65804
31	(D)	William J. Cason	215 E. Franklin, Clinton 64735
32	(R)	Richard M. Webster	1725 S. Garrison, Carthage 64836
33	(R)	James A. Noland, Jr.	Route 1, Osage Beach 65065
34	(D)	John E. Downs	304 Corby Bldg., St. Joseph 64501


MISSOURI
HOUSE OF REPRESENTATIVES
DISTRICTS
St. Joseph [3]
Kansas City [25] Jackson County
St. Louis City [25]
St. Louis County [26]
Numerals indicate Legislative districts
Numbers in brackets [ ] indicate number of districts

The 163 REPRESENTATIVE DISTRICTS of Missouri

STATE REPRESENTATIVES

(Address—House Post Office, Jefferson City, Mo. 65101)

OFFICERS

Speaker	James E. Godfrey
Speaker Pro Tem	Patrick J. Hickey
Majority Floor Leader	Richard J. Rabbitt
Assistant Floor Leader	Charles Broomfield
Majority Whip	Tony Heckemeyer
Minority Floor Leader	R. J. King
Chief Clerk	Agnes Moore

Dist.	*Pol.*	*Name*	*Address*
1	(D)	Frank C. Mazzuca (Deceased)	Kansas City 64106
2	(D)	Frank L. O'Gara	808 West 33rd St., Kansas City 64111
3	(R)	*William Moore	4320 Bell, Kansas City 64111
4	(R)	*William C. Phelps	843 West 56th St., Kansas City 64113

*—two or more terms

Dist.	Pol.	Name	Address
5	(R)	*Ray S. James	6421 Brookside, Kansas City 64113
6	(R)	*Joseph W. Hill	1438 East 78th St., Kansas City 64131
7	(D)	*Tom Ryan	8702 Hiawatha, Kansas City 64114
8	(D)	*William R. (Bill) Royster	3500 Gladstone Blvd., Kansas City 64123
9	(D)	Joe Schorgl	126 N. Quincy, Kansas City 64123
10	(D)	*Henry Ross	1415 Truman Rd., Kansas City 64106
11	(D)	*Leon M. Jordan	2548 Prospect Ave., Kansas City 64127
12	(D)	*Mary L. Gant	5804 E. 14th St., Kansas City 64127
13	(D)	Herman Johnson	2632 West Paseo, Kansas City 64108
14	(D)	*Harold Holliday	2907 Cleveland, Kansas City 64128
15	(D)	*Phillip P. Scaglia	5101 Brookwood, Kansas City 64110
16	(D)	*Gladys Marriott	9001 Leeds Rd., Kansas City 64129
17	(R)	*Mrs. Jewell Kennedy	6111 Harris, Raytown 64133
18	(R)	Harold J. Esser	3 W. Glen Arbor Rd., Kansas City 64114
19	(D)	Robert H. Martin	2505 Chipman, Lee's Summit 64063
20	(D)	*Alvin E. Waits	507 Brookside, Independence 64053
21	(D)	*Howard E. Hines	Route 1, Whitney, Independence 64050
22	(D)	*Clarence H. Heflin	2311 Queen Ridge, Independence 64050
23	(D)	*William R. Antoine	12101 Newbury Lane, Independence 64052
24	(R)	*J. H. Frappier	2335 Hummingbird Lane, Florissant 63033
25	(D)	*Jay Russell	700 Bellamine Lane, Florissant 63031
26	(D)	John Schneider	1185 Penhurst, Florissant 63031
27	(D)	*Walter Meyer	9495 Yorktown Dr., St. Louis 63137
28	(D)	*Earl Schlef	1672 Maldon Lane, Dellwood 63136
29	(D)	*James Mulvaney	5717 Beldon Dr., Flordell Hills 63136
30	(D)	Pat O'Connor	12618 Weskan Lane, Bridgeton 63042
31	(D)	*Patrick J. Hickey	4508 St. Leo Lane, St. Ann 63074
32	(D)	*Wayne Goode	7335 Huntington Dr., Normandy 63121
33	(D)	*E. J. Cantrell	3406 Airway, Overland 63114
34	(D)	R. H. Applebaum (Deceased)	St. John 63114
35	(D)	*R. H. Branom	2151 69th St., Hillsdale 63121
36	(D)	*Ken Rothman	90 Aberdeen Place, Clayton 63105
37	(D)	*Jack Schramm	7529 Gannon Ave., University City 63130
38	(R)	*George Murray	3 Williamsburg Rd., Creve Coeur 63141
39	(R)	*R. J. "Bus" King	816 S. Hanley Rd., Clayton 63105
40	(D)	*John A. Grellner	7380 Dale Ave., Richmond Heights 63117
41	(R)	*Corley Thompson	35 Rosemont, Webster Groves 63119
42	(R)	*Stephen Burns	2020 Bopp Rd., Des Peres 63131
43	(R)	*Richard Marshall	9206 Big Bend, Webster Groves 63119
44	(R)	*J. Anthony Dill	8011 Grandvista, Affton 63123
45	(R)	Harlan A. Gould	10 Adams Lane, Kirkwood 63122
46	(R)	*Eric Fink	1325 Froesel Dr., Ellisville 63011
47	(R)	*Frank Bild	7 Meppen Court, St. Louis 63128
48	(D)	Herm Winkelmann	10111 Stonell Dr., St. Louis 63123
49	(D)	*Donald J. Gralike	648 Buckley Rd., St. Louis 63125
50	(D)	*William R. Connors	5362a N. Kingshighway, St. Louis 63115
51	(D)	*John P. O'Reilly	2124a Adelaide, St. Louis 63107
52	(D)	*Thomas A. Walsh	1820a Warren St., St. Louis 63106
53	(D)	*James Troupe	1538 Hogan, St. Louis 63106
54	(D)	J. B. (Jet) Banks	3129 Lucas, St. Louis 63108
55	(D)	*Paul J. Simon	2756a Lafayette, St. Louis 63104
56	(D)	*Ben Misbauer	3015 Hawthorne Blvd., St. Louis 63104
57	(D)	*Frank E. Kostron	2812 Texas, St. Louis 63118
58	(D)	*Buddy Kay	2639 Keokuk, St. Louis 63118
59	(D)	*James F. Flynn	4737 Virginia, St. Louis 63111
60	(R)	*Edward E. Ottinger	5912 Loughborough, St. Louis 63109
61	(D)	*Joseph W. Beckerle	6145 South Grand, St. Louis 63111
62	(D)	*James E. Godfrey	6227 Devonshire, St. Louis 63109
63	(D)	*John J. Blassie	4400 Oleatha, St. Louis 63116

*—two or more terms

Dist.	*Pol.*	*Name*	*Address*
64	(D)	*Francis R. Slay	6532 Scanlan, St. Louis 63139
65	(D)	*James F. Conway	3811 Flora Place, St. Louis 63119
66	(D)	*Earl W. Horn	1107 Hereford St., St. Louis 63110
67	(D)	*Eugene F. Mazzuca	6215 Victoria, St. Louis 63139
68	(D)	*Richard J. Rabbitt	4340 Forest Park, St. Louis 63108
69	(R)	*Charles E. Valier	4961 Laclede, St. Louis 63108
70	(D)	*DeVerne L. Calloway	4309 Enright, St. Louis 63108
71	(D)	Nathaniel (Nat) J. Rivers	5475 Cabanne, St. Louis 63112
72	(D)	Fred Williams	5621 Chamberlain, St. Louis 63112
73	(D)	*Franklin Payne	4266 Maffitt Ave., St. Louis 63113
74	(D)	*Johnnie S. Aikens	4822 Highland, St. Louis 63113
75	(D)	LeRoy Malcolm	5954a Highland, St. Louis 63112
76	(D)	*Russell Goward	4210a Holly, St. Louis 63115
77	(D)	*Dorothy E. Meagher	5020 Thrush Ave., St. Louis 63120
78	(D)	*Hardin C. Cox	605 Bluff St., Rock Port 64482
79	(R)	*H. F. (Hoot) Holland	Sheridan 64486
80	(D)	*James W. Williams	2010 North 4th St., St. Joseph 64505
81	(D)	*Ronald Reed, Jr.	2602 Francis, St. Joseph 64501
82	(D)	Truman Wilson	2208 Strader Terrace, St. Joseph 64503
83	(D)	*Dick B. Dale	610 East Main, Richmond 64085
84	(D)	*Wm. Fickle	7406 Tomahawk Lane, Parkville 64151
85	(D)	Robert H. Frost	101 W. Frost St., Plattsburg 64477
86	(D)	*Phil Snowden	6006 N.E. Bircain Place, Gladstone 64118
87	(D)	*Charles S. Broomfield	4801 North Lister, Kansas City 64119
88	(D)	*Stan Thomas, Jr.	Route 71 By Pass, Liberty 64068
89	(R)	*Ralph Combs	305 North Grand, King City 64463
90	(R)	*M. C. (Mike) Bauer	2104 Wilson, Bethany 64424
91	(R)	*Vernon Betz	Route 1, Trenton 64683
92	(D)	*Robert DeVoy	522 Linn, Brookfield 64628
93	(D)	*W. D. (Bill) Hibler, Jr.	Rural Route, Brunswick 65236
94	(D)	*Richard J. DeCoster	815 College, Canton 63435
95	(R)	*Cloy E. Whitney	8 Center Road, Kirksville 63501
96	(R)	*Ronald M. Belt	1015 N. Jackson, Macon 63552
97	(D)	*Lloyd J. Baker	Route 3, Moberly 65270
98	(D)	*Charles H. Dickey, Jr.	RFD Box 22, Mexico 65265
99	(D)	*D. R. (Ozzie) Osbourn	P. O. Box 224, Monroe City 63456
100	(D)	*Harold L. Volkmer	719 Country Club Dr., Hannibal 63401
101	(D)	*Edward M. Cannon	Route 2, Troy 63379
102	(D)	*Joe Holt	829 Center St., Fulton 65251
103	(R)	*Ralph Uthlaut, Jr.	New Florence 63363
104	(D)	*Omar J. Dames	Route 3, Box 76, O'Fallon 63366
105	(R)	*Arlie H. Meyer	234 Thomas, St. Charles 63301
106	(R)	*C. M. (Cap) Bassman	9th and Gutenberg, Hermann 65041
107	(R)	*F. L. Brenton	806 E. Washington, Cuba 65453
108	(D)	*Norbert J. Jasper	819 W. 2nd St., Washington 63090
109	(R)	*Melvin Vogelsmeier	Concordia 64020
110	(D)	*Frank L. Mickelson	Route 1, Freeman 64746
111	(R)	E. A. Brewer	Highway 52 West, Butler 64730
112	(D)	*Don W. Kennedy	612 West Cherry, Nevada 64772
113	(D)	*Curt Davidson	612 S. Second, Cinton 64735
114	(D)	*Frank Wells	Route 1, Centerview 64019
115	(D)	*Joe F. Rains	700 E. 10th, Sedalia 65301
116	(R)	*Guss Salley	P. O. Box 247, Warsaw 65355
117	(D)	*James I. Spainhower	516 S. Drive, Marshall 65340
118	(D)	*Bill J. Crigler	402 Morrison, Fayette 65248
119	(R)	Harold F. Reisch	1013 Falcon Dr., Columbia 65201
120	(R)	*George W. Parker	819 Crestland, Columbia 65201
121	(R)	*Harold Dickson	400 West Russell, California 65018

*—two or more terms

Dist.	Pol.	Name	Address
122	(D)	*Thomas D. Graham	1000 Moreau Dr., Jefferson City 65101
123	(R)	*Carrol J. McCubbin	Route 3, Eldon 65026
124	(D)	*Jim Arnold	100 N. Newport Land, Waynesville 65583
125	(R)	*John T. Russell	P. O. Box 93, Lebanon 65536
126	(D)	*Earl J. Sponsler	Route 2, Cabool 65445
127	(D)	*Richard (Dick) Smallwood	568 South Jefferson, St. James 65559
128	(D)	*Marvin L. Dinger	Route 1, Ironton 63650
129	(D)	*James Cordell Skaggs	Route 2. Ellington 63638
130	(D)	*Wm. F. (Buck) Casey	304 Mineral St., Potosi 63664
131	(D)	*Howard M. Garrett	1540 Westvale, Festus 63028
132	(D)	Charles A. Sheehan	Route 1, Box 434, House Springs 63051
133	(R)	*Robert E. Young	208 W. Macon St., Carthage 64836
134	(R)	*John W. Webb	602 W. Broadway, Webb City 64870
135	(D)	Leo W. Schrader	2829 Kentucky, Joplin 64801
136	(R)	*Harry E. Hatcher	225 East Main, Neosho 64850
137	(D)	*Dean Shaver	Route 1, Anderson 64831
138	(R)	*Ralph H. Melton	Route 1, Dadeville 65635
139	(R)	*Keith H. Stotts	506 Walnut, Pierce City 65723
140	(R)	R. E. (Johnny) Westfall	S. Benton Township, Halfway 65663
141	(R)	*Les Langsford	2311 S. Dollison, Springfield 65804
142	(D)	Ted Salveter	1333 East Delmar, Springfield 65804
143	(R)	*George Donegan	1714 E. Meadowmere, Springfield 65804
144	(R)	*Edward (Doc) Groves	2340 East Ave., Springfield 65803
145	(D)	*Harry E. Blackwell	Route 6, Box 542, Springfield 65803
146	(R)	*Donald Gann	706 North 10th St., Ozark 65721
147	(R)	*Tom M. Carter	Public Square, Hartville 65667
148	(R)	Mervin R. Case	Route 4, Ava 65608
149	(R)	*Edna Eads	112 South Pine, Bonne Terre 63628
150	(R)	Raymond L. Skaggs	Route 3, Fredericktown 63645
151	(D)	*James E. Spain	Spring St., Bloomfield 63825
152	(R)	*O. L. Wallis	1331 Pershing, Poplar Bluff 63901
153	(D)	*Don Hancock	906 Lafayette, Doniphan 63935
154	(R)	*Martin Degenhardt	Route 5, Perryville 63775
155	(R)	A. Robert Pierce	2544 Ranchito, Cape Girardeau 63701
156	(D)	*Marvin E. Proffer	Highway 72 West, Jackson 63755
157	(D)	*Tony Heckemeyer	115 Wakefield, Sikeston 63801
158	(D)	Fred De Field	203 North 10th St., Charleston 63834
159	(D)	*Fred E. Copeland	1399 Mill St., New Madrid 63869
160	(D)	*Vic Downing	Route 1, Bragg City 63827
161	(D)	*R. B. King	303 North Marion, Maldin 63863
162	(D)	George M. Cook	700 Beckwith, Caruthersville 63830
163	(R)	*Granvil B. Vaughan	Route 1, West Plains 63775

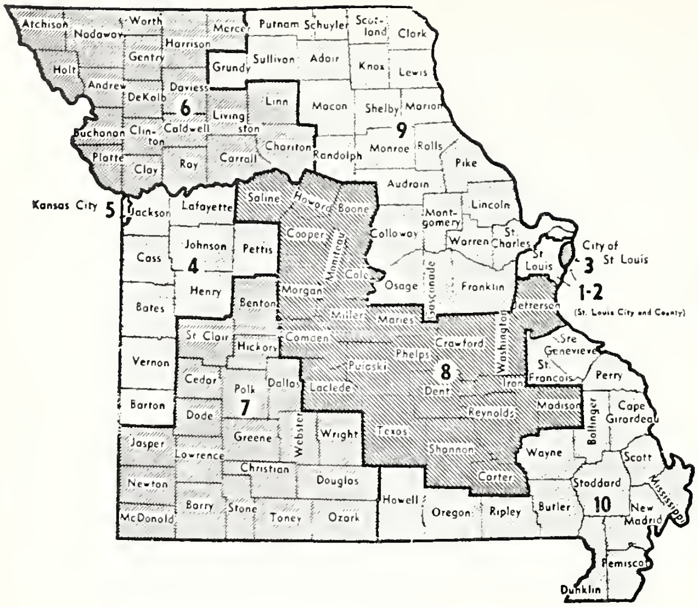
*—two or more terms

The counties listed below have more than one Representative District. The map does not include all detail. If you reside in one of these counties, it may be necessary to contact your County Clerk or your Board of Election Commissioners to determine the number of your District. Telephone numbers of the Boards of Election Commissioners are:

Barry
Boone
Buchanan
Butler
Cass
Cape Girardeau
Clay
Cole
Dent
Dunklin
Franklin
Greene
Jackson
Jasper
Jefferson
Johnson
Marion
New Madrid
Newton
Ozark
Pemiscot
Pettis
Pike
Polk
Pulaski
St. Charles
St. Louis
St. Louis City
St. Francois
Schuyler
Scott
Stoddard
Vernon

The Ten CONGRESSIONAL DISTRICTS of Missouri

(May 1, 1966)


Atchison
Nodaway
Worth
Harrison
Mercer
Putnam
Schuyler
Scotland
Clark
Holt
Gentry
Grundy
Sullivan
Adair
Knox
Lewis
Andrew
DeKalb
Daviess
6
Linn
Macon
Shelby
Marion
Buchanan
Clinton
Caldwell
Livingston
9
Platte
Clay
Ray
Carroll
Chariton
Randolph
Monroe
Ralls
Pike
Audrain
Kansas City
5
Jackson
Lafayette
Saline
Howard
Boone
Montgomery
Lincoln
Cooper
Moniteau
Callaway
Warren
St. Charles
Johnson
Pettis
Cass
4
Cole
St. Louis
City of St Louis
3
Henry
Morgan
Osage
Gasconade
Franklin
1-2
(St. Louis City and County)
Bates
Benton
Miller
Maries
Jefferson
St Clair
Camden
Crawford
Washington
Ste Genevieve
Hickory
Phelps
Vernon
Pulaski
8
St. Francois
Perry
Cedar
Polk
Dallas
Laclede
Dent
Iron
Barton
7
Reynolds
Madison
Cape Girardeau
Dade
Bollinger
Jasper
Greene
Webster
Wright
Texas
Shannon
Wayne
Scott
Lawrence
Christian
Carter
Newton
Douglas
Stoddard
Mississippi
Barry
Stone
Howell
Oregon
Ripley
Butler
10
New Madrid
McDonald
Taney
Ozark
Pemiscot
Dunklin

All of St. Louis City and St. Louis County were formerly in Districts 1, 2, and 3. Now some of the far western townships of the county are in District 8 and two of the far northern townships are in District 9.

MISSOURI DELEGATION—91st CONGRESS

U. S. SENATORS

(Address—Senate Office Building, Washington, D. C. 20510)

NAME	*ADDRESS*
Stuart Symington (D)	**7730 Carondolet, Clayton, Missouri 62105**
Thomas F. Eagleton (D)	**268 Woodbourne Dr., St. Louis, Missouri 63105**

U. S. REPRESENTATIVES

(Address—House Office Building, Washington, D. C. 20515)

Dist.	*Pol.*	*Name*	*Address*
1	**(D)**	**William (Bill) Clay**	**5146A Minerva, St. Louis 63113**
2	**(D)**	**James W. Symington**	**230 S. Brentwood, Clayton 63105**
3	**(D)**	**Leonor K. Sullivan**	**5966 Columbia Ave., St. Louis 63139**
4	**(D)**	**Wm. J. Randall**	**201 South Pleasant, Independence 64050**
5	**(D)**	**Richard Bolling**	**722 Walnut, Kansas City 64106**
6	**(D)**	**W. R. (Bill) Hull, Jr.**	**Weston 64098**
7	**(R)**	**Durward G. Hall**	**2442 S. Fremont Ave., Springfield 65804**
8	**(D)**	**Richard Ichord**	**116 West Main, Houston 65483**
9	**(D)**	**Wm. L. (Bill) Hungate**	**755 Cap-au-Gris, Troy 63379**
10	**(D)**	**Bill D. Burlison**	**2306 Jane, Cape Girardeau 63701**

WASHINGTON

The American Medical Association told Congress that the Internal Revenue Service acted arbitrarily and completely ignored the facts in imposing a tax on revenue from drug advertising in journals of tax-exempt medical associations.

Bernard D. Hirsh, AMA general counsel, testified before the House Ways and Means Committee, that the relation between the tax-exempt purposes of a medical association, national or state, and the drug advertising in its journal is self-evident.

"Drug advertising alerts and stimulates the physician's interest in new drugs as they become available and, also, serves to remind him of the broad spectrum of useful time-proven drugs," Hirsh said. "Obviously, physicians should not and do not rely upon drug advertisements as their principal source of information, but drug advertisements often provide an important step in the process through which physicians become educated in the therapeutic value and risks of new drugs and a wider variety of useful drugs. . . .

"No other advertising provides as much complete and objective information."

Hirsh said the IRS regulations taxing medical associations on their advertising revenues represents an attempt to change the law without congressional action. The IRS officials made a mistake, he said.

"We urge that this mistake be rectified expeditiously and in the most practical way possible," Hirsh said.

Spokesmen for numerous other tax-exempt associations joined the AMA in opposing the tax on their advertising revenues. These included the American College of Physicians, the American College of Obstetricians and Gynecologists, the American Psychiatric Association, the American Dental Association, the Boy Scouts of America, the Girl Scouts of America, the American Chemical Society and the Society of National Association Publications.

Representatives of commercial publishing firms contended in testimony before the committee that the previous tax exemption gave the journals of the associations an unfair advantage in competition for advertising dollars. When the IRS announced the new tax regulations 15 months ago, it stated that the purpose of the regulations was not to raise federal revenue but to remove a competitive advantage of the tax-exempt associations.

In an announcement not directly connected with the House committee hearings, the IRS said it also is considering taxing the income tax-exempt associations get from rental of exhibit and display space at conventions.

A special advisory committee urged an extensive national program to combat alcoholism.

* * *

The National Advisory Committee on Alcoholism said in an interim report that attention should be given to alcoholism problems in all federally-supported health and welfare programs. The committee also recommended:

Elimination by hospitals of discriminatory policies denying admission to alcoholic patients; health insurance coverage for alcoholics; increased support for research; prevention and control of alcoholism as a vital part of national highway safety programs.

The advisory committee provides advice and guidance to the Secretary of Health, Education and Welfare concerning the department's activities related to alcoholism. Robert Straus, Ph.D., professor of medical sociology at the University of Kentucky Medical School, is chairman of the committee. It was created in October, 1966. Its members represent all sections of the country and include experts from the fields of medicine, psychiatry, sociology, vocational rehabilitation, law and public health.

* * *

The federal government is planning to launch a five-year, nationwide program of inoculation against rubella, or German measles, as soon as a vaccine is licensed and available in sufficient quantities. It is expected a vaccine will be available by next fall.

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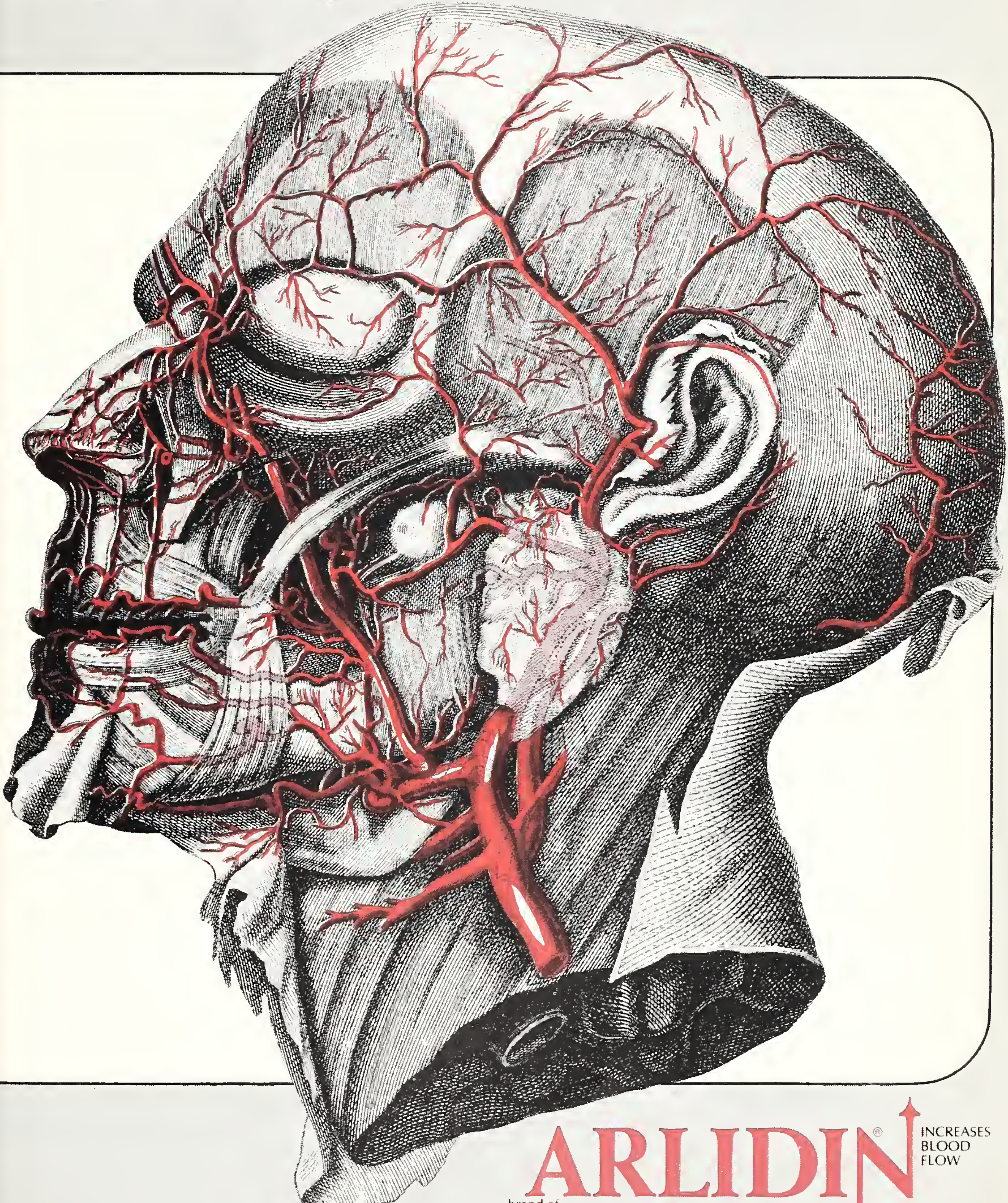

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Notes of interest from Here . . . . and There

Dr. Henry M. Parrish, Columbia, formerly professor and chairman of community health and medical practice and director of graduate studies in public health at the University of Missouri, has been appointed associate dean and professor of community medicine at the University of South Dakota School of Medicine.

When he arrived at his church on February 9, his 85th birthday, **Dr. P. C. Archer,** Shelbyville, was greeted with birthday congratulations, and a birthday dinner was held in his honor by the congregation and his friends. Dr. Archer said that he has tried to retire but still continues to get calls for medicine.

A resolution commending the late **Dr. Odus Liston** of Oak Grove was passed by the Oak Grove City Council recently. The resolution praised Dr. Liston for "giving of his many talents in the advancement of the cause of health" and described his 50 years of service as "being of the highest order." A plaque containing the words of the resolution was presented to **Mrs. Liston.**

Dr. William L. Doane, Grandview, has announced the association of **Dr. Lynn D. Weller,** a specialist in obstetrics and gynecology, with the Grandview Clinic. Dr. Weller, a native of Pocatello, Idaho, received his M.D. degree at Utah University in 1963 and completed his residency at the University of Kansas in 1967.

Dr. Leon V. Mulligan, associate professor of surgery at the St. Louis University School of Medicine and chief of staff at St. Louis City Hospital, has received the Ralph A. Kinsella Award given annually to a distinguished alumnus by the Phi Beta Pi medical fraternity. **Dr. Eugene F. Tucker,** associate professor of pathology at the school, made the presentation.

Dr. E. Charles Rolwing, Charleston, is preparing for retirement after 40 years of general medical practice. After retirement, Dr. and Mrs. Rolwing plan to live in Memphis, Tenn., where they are building a new home.

The Council Reports

Meeting of Feb. 1-2, 1969

Joseph L. Fisher, M.D., St. Joseph, Chairman, called the meeting to order. Those attending the meeting were: Drs. Fisher; Walter Gunn, St. Louis; Robert A. Mayer, Clayton; Rolla B. Wray, Nevada; Gerald L. Miller, Kansas City; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; W. D. English, Cardwell; David N. Kerr, St. Louis; Doyle C. McCraw, Bolivar; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; Paul F. Max, St. Louis; Hector W. Benoit, Kansas City; Stanley S. Peterson, Springfield; J. Loren Washburn, Versailles; William D. Mayer, Columbia; William C. Allen, Columbia; Ralph W. Hall, Kansas City; Herbert C. Wiegand, St. Louis; Truman B. Schertz, North Kansas City; James N. Haddock, St. Louis; George A. Ulett, St. Louis; James W. Willoughby, Kansas City; Messrs. John W. Noble, Kennett; James W. Foristel, Washington, D. C.; Hollister Smith, St. Louis; Edgar Mothershead, Clayton; Gary L. Schnedler, Springfield; Allen D. Smith, Kansas City; Tom R. O'Brien, St. Louis; Tom P. Fox, Bob Carroll, Royal Cooper and Ray McIntyre, Jefferson City.

Approval of Previous Council Minutes

The Chairman opened the meeting by calling for approval of the minutes of the Council meeting of Dec. 14, 15, 1968. An error was noted on page 5, paragraph 2, line 2, where the word "June" should be changed to "July." On motion of Dr. McCraw, duly seconded, the minutes were approved as corrected.

A question arose regarding the appointment of an Ad Hoc Committee to study the Greene County proposal to establish a new level of medical practitioner and whether or not this should be done by the Council or presented first to the House of Delegates. After discussion, it was agreed that the Chairman of the Council would appoint this Ad Hoc Committee.

Dr. Fisher then called for approval of the minutes of the Special Council meeting which was held on Jan. 11, 1969 to consider the action taken by the AMA House of Delegates at the Clinical Session in Miami last December on studying health care costs as they might be related to the MSMA proposed study. On motion of Dr. Gunn, duly seconded, the minutes of the Special Council meeting were approved.

Blue Cross Form SB-811

The Chairman reported that the letter approved at the Dec. 14, 15, 1968 Council meeting was sent to Mr. Rexford, President, St. Louis Blue Cross, disapproving the continuation of sending out Form SB-811 requesting information which is considered privileged information. He stated that a reply had been received as of January 21, as follows:

"Thank you for your further comments relative to Form SB-811 which is used in connection with the Medicare program.

"We note that you indicate you have no objection to the form per se and want to cooperate with Blue Cross in its position as fiscal intermediary, however, you are concerned about the release of information. This is provided for on the Medicare claim form when each patient signs the following authorization contained in the form:

> 'Patient's Certification, Authorization to Release Information, and Payment Request. I certify that the information given by me in applying for payment under Title XVIII of the Social Security Act is correct. I authorize any holder of medical or other information about me to release to the Social Security Administration or its intermediaries or carriers any information needed for this or a related medicare claim I request that payment of authorized benefits be made on my behalf.'

"As was indicated in our letter of Oct. 2, 1968, the Social Security Administration requires that the fiscal intermediary determine that the level of care being rendered qualifies for Medicare benefits. This is questioned only in rare instances—in fact, less than one-half of 1% of the Medicare cases. And in these instances, neither the quality of care nor the need for hospitalization is being questioned. Instead, the purpose of the requirement is to determine whether the level of care has become custodial in nature, because if the care is custodial, Medicare benefits may not be allowed although the patient may continue to be hospitalized.

"Instructions contained in the fiscal intermediary manual issued by the Social Security Administration indicate that in determining level of care eligibility for Medicare benefits, the following type of information should be obtained by the fiscal intermediary—physician's orders, patient's nursing care plan, progress notes, physician's recertification statements and the Utilization Review Committee decision. A copy of this section of the Social Security Manual is enclosed and it will be noted that the decision of the Utilization Review Committee is one of the items requested. Your letter mentioned the Claim Review Committee. If this Committee is performing the review function, the decision of this Committee would then be appropriate.

"We were glad to hear from you again and sincerely hope that we have explained our responsibility in this phase of the Medicare program. Your cooperation in helping us meet this responsibility will be greatly appreciated."

Executive Secretary's Report

Mr. McIntyre mentioned the death of Dr. O. B. Barger of Harrisonville in December and, also, the recent deaths of Dr. and Mrs. Chester Clark of Trenton, who were killed in a highway accident on their way home from a meeting of the MSMA Medical Economics Committee.

He presented a request from the Conference of Presidents and Other Officers of State Medical Associations for continuation of membership in that organization with annual dues of $75.00 per year. On motion, duly seconded, it was agreed to continue MSMA membership in this organization.

Dr. Fisher reported the establishment of a Memorial Fund for the family of Dr. and Mrs. Chester Clark and stated that if anyone were interested, contributions may be sent to the Chester Clark Memorial Fund, c/o Trenton Trust Company, Trenton, Mo.

Editor of Missouri Medicine

Dr. Fisher recommended that the Council appoint the Editor of Missouri Medicine at this time. On motion, duly seconded, Dr. Joseph V. Finnegan, St. Louis, was reappointed Editor of Missouri Medicine for another year. On motion, duly seconded, it was agreed that a note of appreciation be sent to Dr. Finnegan for his excellent service as Editor of Missouri Medicine.

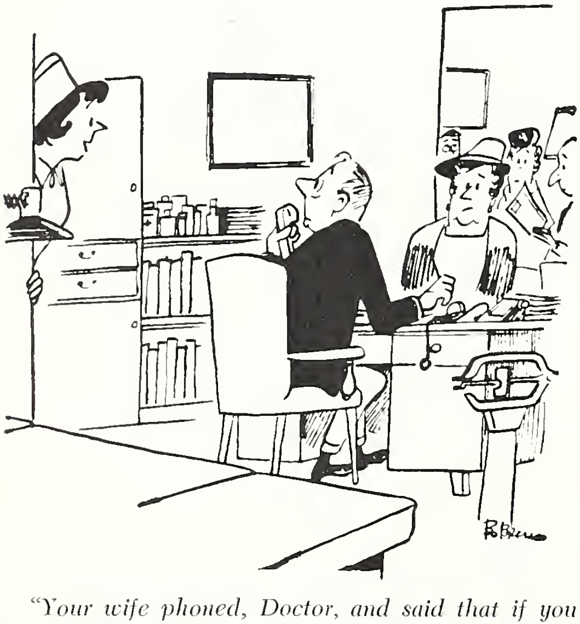
Medicial Education and Hospitals

Dr. Ralph Hall, Chairman of the Committee on Medical Education and Hospitals, presented the report of the Committee which met on Oct. 7, 1968. The Committee discussed the MSMA resolution regarding the need to increase the number of qualified physicians in Missouri. He stated that the Committee was informed that copies of the resolution would be sent to the members of the Missouri 75th General Assembly.

The Committee also discussed the MSMA resolution regarding the establishment of a Medical School in Kansas City and the Committee approved a motion recommending that the resolves in the resolution be carried out.

Dr. Hall reported that the Committee discussed the need for the State Association to take a look at the entire matter of medical school financing in Missouri with the following motion approved by the Committee: That the Council of the MSMA be asked to appoint a group to explore the funding of Missouri Medical Education, both private and public.

It was pointed out by Dr. McAlhany that the Commission on Higher Education has studied this problem, and facts and figures are available through the office of the Commission. It was suggested that a copy of this material be obtained and made available to the Committee on Medical Education and Hospitals.



"Your wife phoned, Doctor, and said that if you can't get home for dinner again tonight . . . will you please send her a recent photograph of yourself!"

After further discussion, on motion, duly seconded, it was agreed that this portion of the report be referred back to the Committee on Medical Education and Hospitals for further study and exploration of existing figures which are now available through the office of the Commission on Higher Education.

The Committee also discussed the beginning of internships prior to graduation. It was pointed out that a number of states allow medical students, in the last part of their senior year, to enter internships prior to graduation, and it was thought that Missouri might be losing some physicians because this was not being done in Missouri. It was noted that a bill had been introduced in the 1967 session of the Legislature which would have necessitated a year of internship before a medical graduate could get his Missouri license. However, the bill did not get out of committee, and it was felt the measure was not needed.

After discussion, on motion, duly seconded, the latter two items of the report were referred to the Legislative Committee for further consideration. On motion, duly seconded, the Report of the Committee on Medieal Education and Hospitals was accepted.

Liaison Committee of MSMA and Osteopathic Association

Dr. Kerr reported on a meeting of the Executive Committee of the Council with the Executive Committee of the Osteopathic Association as a Liaison Committee between the two groups to explore the possibility of Doctors of Osteopathy securing graduate training in M.D.-approved hospitals in accordance with a resolution passed at the last session of the MSMA House of Delegates. The Osteopathic Committee reported that they were not in a position at this time to discuss the MSMA resolution.

Dr. Kerr stated that MSMA had had a Liaison Committee with the Osteopathic Association at one time, but no meetings had been held in the last several years. It was his suggestion that it would be better to appoint a five-man Liaison Committee from each organization to meet and discuss matters of mutual interest, rather than have the Executive Committees take this added responsibility. He stated that the Osteopathic group was in favor of this idea and that liaison between the two groups is definitely in order.

Treasurer's Report

Dr. Franklin presented a brief financial report of the Association as of Jan. 1, 1969. He stated that the financial result of the activities of the Association for the year 1968 was in excess of income over expenses of $9,956.

He said that the 1968 Audit of the Association's accounts will be published in the March 1969 issue of Missouri Medicine and also will be included in the Delegate's Handbook for the 1969 Annual Session. On motion, duly seconded, the Treasurer's Report was approved.

Legislative Scene in Washington, D. C.

Mr. James W. Foristel of the AMA Washington office gave a brief rundown on some legislative activities at the national level, but stated that it was too early to make any predictions.

(Continued on page 307)

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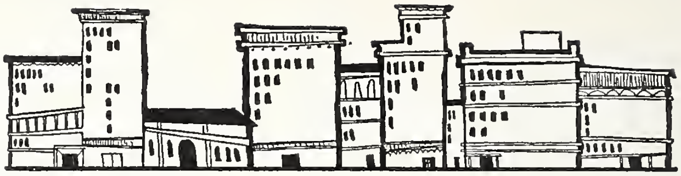
From the Medical Schools



MISSOURI UNIVERSITY

Dr. Robert L. Jackson, chairman of the pediatrics department, has been awarded one of the highest honors in the field of diabetes. He will receive the Banting Medal from the American Diabetes Association (ADA) at the organization's annual meeting in New York City on June 28. The annual award is named after Sir Frederick G. Banting, codiscoverer of insulin in 1923.

Dr. Jackson

Dr. Jackson was selected for the honor by a special ADA committee because of his "distinguished study of the natural history of juvenile diabetes and success in establishing diabetes as an important entity in pediatrics." Recognized as a leading authority on diabetes, he heads the University Medical Center Diabetes Clinic, one of the few major clinical and research centers in the world for the study of children with diabetes.

Two associate professors in the School of Medicine are authors of a new book on medical interviewing, published in February. Titled "Medical Interviewing," a programmed manual, it is the first in print in its subject area.

Robert E. Froelich, M.D., and his wife, F. Marian Bishop, who holds advanced degrees in sociology, anthropology and education, prepared the book to assist the physician in establishing more meaningful physician-patient relationships and to help him obtain more valuable information from the medical interviews with his patients. The publisher points out that the book can be used as a supplementary text in medical school courses which teach future physicians the techniques of interviewing. Also, it can serve as a review reference for general practitioners and internists.

Dr. Froelich is an associate professor of psychiatry and also head of the department of medical communication at the School of Medicine. Dr. Bishop is an associate professor in the departments of sociology and community health and medical practice.

Dr. Charles E. Mengel, professor and chairman of the department of medicine, has worked with the National Aeronautic and Space Administration (NASA) studying the effects of a changed environment on the blood of both astro-and aquanauts in preparing for the flight of Apollo 9 and the sea-lab dives off the coast of the Virgin Islands. His work is coordinated with other blood testing at the Manned Spacecraft Center in Houston, Tex. and at the University of Texas research facilities in Galveston. These tests include routine analyses of blood and other special studies of blood components and proteins.

In order to collect the blood, Dr. Mengel must fly to Houston or the Cape and return immediately with the first samples. He then returns for the second and makes another round trip later for the third. A complete series of tests on one space mission usually takes less than two weeks, according to Dr. Mengel.

Miss Mary Ann Stiles and Gary L. Mueller have been chosen to represent the School of Medicine at the National Student Research Forum, April 24-26, in Galveston, Tex. The annual event is sponsored by the Student American Medical Association and the University of Texas Medical Branch.

WASHINGTON UNIVERSITY

Neal S. Bricker, M.D., professor of medicine, is featured in the cover story of the February 24 issue of *Modern Medicine*, a national medical journal. Selected by the journal editors as their "Contemporary" for the issue, Dr. Bricker is internationally-known as a clinical investigator in the field of renal physiology. He has been at Washington University since 1956, starting as assistant professor of medicine and now holding the position of head of the renal division in the department of internal medicine. He received his M.D. degree from the University of Colorado School of Med-

Dr. Bricker

icine in 1949. Before coming to Washington University, he was an instructor at Harvard Medical School and associate director of the cardio-renal laboratory at Peter Brent Brigham Hospital in Boston.

Two members of the School of Medicine faculty have received grants from the National Science Foundation totaling $83,900.

Milton J. Schlesinger, Ph.D., associate professor of microbiology, is receiving $50,000 for research entitled "Structure and Function of E. Coli Alkaline Phosphatase."

P. Roy Vagelos, M.D., professor and head of the department of biological chemistry, has a grant for $33,900 to continue his research of "Enzymatic Mechanism in Lipid Metabolism."

ST. LOUIS UNIVERSITY

Dr. Vallee L. Willman, professor of surgery and vice-chairman of the department at the School of Medicine, has been named chairman of the department of surgery effective August 1, 1969.

Dr. Willman will succeed Dr. C. Rollins Hanlon, who has held the post of professor and chairman of the department of surgery since 1950. Dr. Hanlon has been named director of the American College of Surgeons.

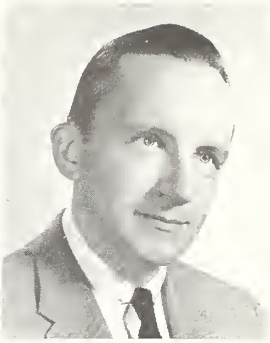
Dr. Willman has been affiliated with the St. Louis University School of Medicine since 1947, when he enrolled as a medical student. After interning at Philadelphia General Hospital, he began his surgical residency at the St. Louis University Group of Hospitals under the direction of Dr. Hanlon. He joined the medical faculty as senior instructor in surgery at St. Louis University in 1957 and was named full professor in 1963. He became vice-chairman of the department in 1967.

When a resident in surgery, he began his work in experimental open heart surgery on animals using the heart lung machine. His work helped establish the program in open heart surgery.

He was a member of the surgery team which performed the first open heart operation in the St. Louis area at the St. Louis University Hospital in 1956. Since that time, University surgeons have performed more than 1200 open heart operations and the surgical team has been identified as one of six in the United States trained to perform heart transplantation.

A nationally-known cardiovascular thoracic surgery specialist, Dr. Hanlon is noted especially for his work in open heart surgery. The University surgical team, of which Dr. Willman was a member, worked under his direction.

Dr. Willman



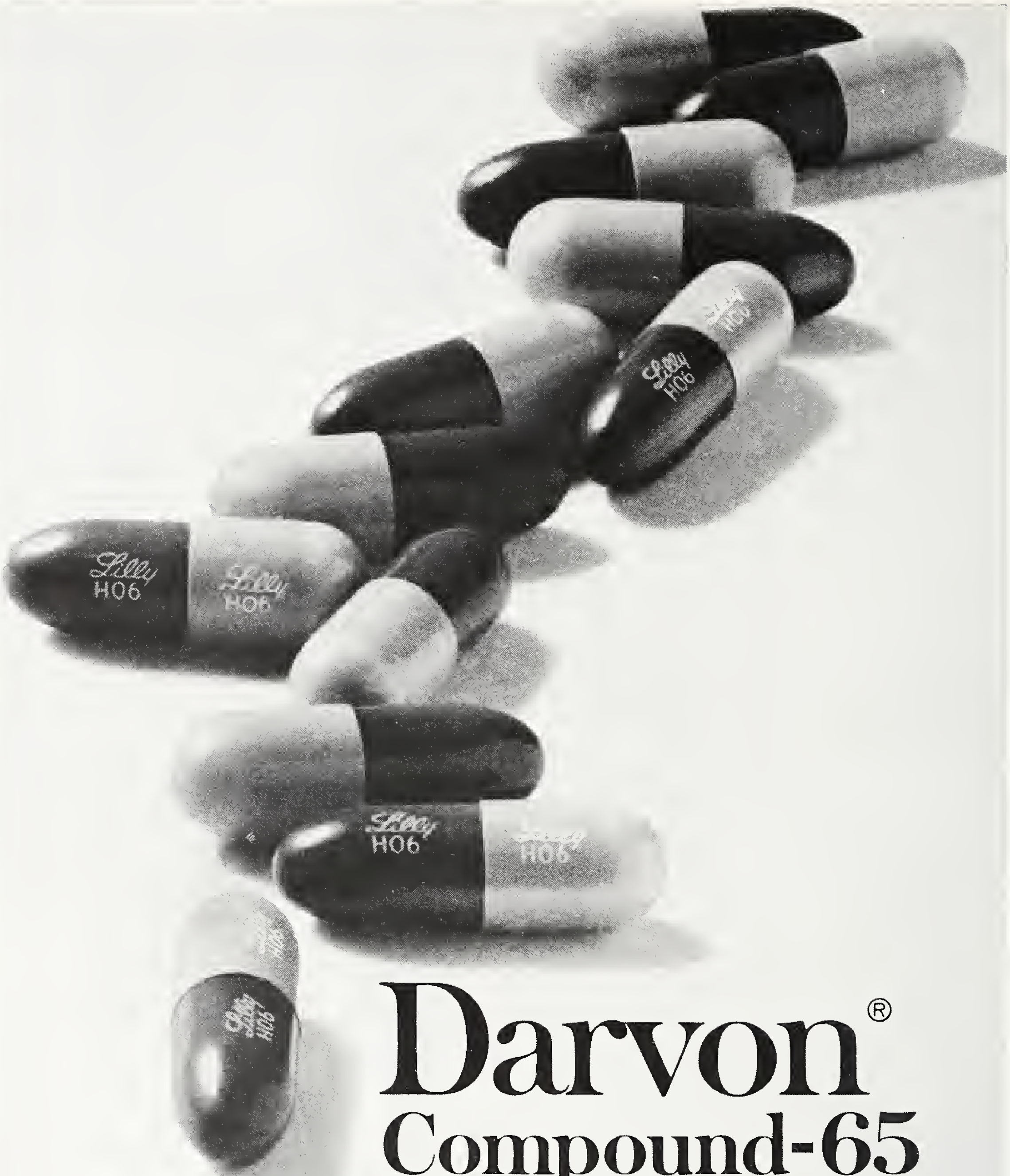
Dr. Hanlon

In 1959, Dr. Hanlon was named St. Louis' "Physician of the Year" by the St. Louis College of Pharmacy Alumni Association. In January, he was honored by the St. Louis Medical Society for "outstanding achievements in the field of thoracic, cardiovascular and general surgery" and excellence as a teacher.

Dr. Hanlon was a founding member of the American Board of Thoracic Surgery, was a member of the American Board of Surgery from 1961 to 1967 and is a Past-President of the St. Louis Surgical Society and the North American chapter of the International Cardiovascular Society. He has held a number of positions in the College of Surgeons. He will assume the directorship of the College in October.

The first Missouri Regional Meeting of the American College of Physicians to be hosted by the Department of Internal Medicine was held on February 15. Dr. Thomas F. Frawley, chairman of the department, presided over the daylong scientific program.

Scientific papers were presented by medical faculty members drawn from the University of Missouri, Washington University and St. Louis University. They included Dr. Jack M. Martt, professor of medicine, University of Missouri; Dr. Edwin E. Westura, associate professor of internal medicine and director of the stress physiology laboratory in the section of cardiology, St. Louis University; Dr. Charles E. Mengel, chairman of the department of medicine, University of Missouri; Dr. Stuart A. Kornfeld, assistant professor of medicine, Washington University; Dr. Arthur E. McElfresh, chairman of the department of pediatrics, St. Louis University; Dr. Hugh Chaplin, Jr., Kountz professor of preventive medicine and professor of medicine, Washington University, and director of the Irene Walter Johnson Institute of Rehabilitation; and Dr. Reginald P. Pugh, Ellis Fischel State Cancer Hospital, Columbia.



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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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FERNANDO TAPIA, M.D., *Columbia*

Family Therapy Simplified

Presently in psychiatry, and especially in child psychiatry, there is an increasing practice of seeing total families in treatment. This does not mean, however, that the identified patient is seen alone while the parents or other members of the family are seen concurrently. Instead, all members of the family are seen together. Sometimes the family is seen without a patient being ostensibly defined. This often calls for including the children, even when one of the parents is the actual patient. The practice of involving the rest of the family, however, seems to be gaining more favor in cases of child psychopathology than in situations in which an adult is the emotionally disturbed person.

The rationale for seeing the entire family is this: The family is a system, and the presenting complaint (such as a daughter who is running away, doing poorly at school and generally rebelling) is viewed as a disturbance in a system and not, particularly, as a disturbance in an individual. This justifies the family being seen together and, fortunately, it often makes easier the inclusion of the rebellious youngster in therapy.

Although physicians deal mostly with physically ill individuals, it often has been apparent that those individuals are essentially units of a family that is distressed. Physicians who deal more intensely with interpersonal relationships have discovered that, in our culture, family units have a living strength of their own, a strength that can be vital in the survival of any one of the members. Consequently, it is not uncommon that the family must be dealt with in order to get to certain segments of pathology, be it physical or psychic. No wonder it has been said that if a sociologists were to drop from outer space to explore our ways of living, he undoutebdly would report first on the general phenomena of the family unit. Perhaps, then, it is worthwhile to consider at this time what major tasks a family performs.

A family performs two major functions in behalf of the children. First, it provides an emotional setting, a climate of affection and an interpersonal network in which the growing child can work toward self-enhancement by feeling warm, comfortable, loved, accepted and "at home." Second, the family teaches its culture to the child. Thus, the adults pass on the appropriate behaviors and beliefs to the children. It is the family that acculturates the child so that when a child goes out into the mainstream of society, he blends into it, is able to receive personal satisfactions and is a contributor to that society. The child's ultimate effectiveness as a member of the larger society may be, in the last analysis, the best test of a family's success. When either of the two defined family functions has been wanting or mismanaged, a child of that family is likely to show some personal or interpersonal difficulties. This, then, may bring them to professional attention.

At this time, one can look at the presenting problem as the indicator of a weak point of a system which is failing in one or both of its main jobs. Taken one step further, one then asks, "How is the family going to promote the proper emotional setting and the acculturation for the youngster? In fact, can this still be done by the family, perhaps with outside help?" If the family follows the usual patterns which mean or, at least, simulate integrity as a social unit, it can be considered fortunate. Families usually prefer to do their own work. What, then, is family therapy except helping the family perform its two major functions?

STRATEGY OF FAMILY THERAPY

At least three overall strategies underline the many detailed elements which go into making up family therapy. These will not be given in any order of importance since the order of importance varies in each particular case.

Individual Worth. Some families cannot seem to tolerate or permit their members to be reasonably independent. In some families, individual members are not granted enough latitude to express their own individualities. Even harmonious familes that seemingly never require psychological intervention often can be victims of collective efforts aimed at inhibiting personal interests and determination. In families with an ongoing difficulty, however, the matter of an individual member asserting his role and expressing his interests is often painfully conspicuous by its presence. It is by integrating such a unit or member into the family system that family therapy often plays an effective role. In family therapy, the special characteristics, interests and desires of a member are, with the help of the therapist, expressed more clearly, defined more carefully and presented in a way which should be less threatening to the rest of the family. This, hopefully, will develop more tolerance and appreciation, rather than irritation and antagonism in the other members of the family.

Example: A very well-educated, intelligent, alert mother always subdued herself in relation to her husband as a result of a family "myth" that all decisions were to be left to father, who was the final authority. In this family, this condition was most unfortunate since mother seemed to be much more aware than father of the details upon which to base many decisions. Actually, she would have preferred to make them. In fact, the children sensed this and would sabotage father's authority and try to reinforce mother's role. One of the children was deliberately aggravating the conflict between mother's knowledgeable intelligence and father's authoritative arbitrariness. This is what brought the family to therapy—an aggressive, difficult boy. As family therapy unfolded, it allowed mother's individual worth and competence to come through and, thus, she was able to become a truly equal partner in the marriage. No longer could the son aggravate the situation, and his behavior improved.

Communications. Because families either do not take time to communicate or their communication is couched in old perceptive sets and attitudes (parents sometimes forget that their children are growing), there often is an unrecognized problem of communication between members of a family. In the beginning of family therapy, it is common to find that this is really the first time the entire family has sat down to talk for any significant period of time. Secondly, this is a time when children speak up. What they have to say comes out much more clearly since, under the conditions of family therapy, it is uncommon for parents to continue insisting that children have nothing to contribute to the family pool of information and decisions. This is the time for oppressed wives and "mousy" husbands to have their say! Some therapists have found that after the family leaves the formal therapy situation, their communications will continue with the momentum given to it during therapy. In fact, a much more spontaneous type of information exchange continues.

Example: In one family, two of the children were quite fed up with having to perform many chores in behalf of the family pets. Most of these pets were the pride and joy of the mother whose feeling for pets was not actually shared by other members of the family. Over the years, however, it had become a point which was overlooked by the mother. It was not until the family got into therapy and each youngster calmly voiced his strong aversion to these chores that the mother not only realized the feeling of these youngsters, but, also recognized her own excessive investment in and identification with the pets. In fact, she became aware of the fact that the children did not respond to her solicitousness in the same way that the animals did and that the children resented such solicitousness as her effort to place them under obligation to her.

Understanding. Possibly, this is one of the more exciting phases of family therapy. In fact, Dr. Jerome Bach of Minneapolis, Minn., who has done family therapy for many years, considers his basic approach to family therapy to be "to try to understand whatever is going on." It is felt that hammering and digging away at the problems will reveal some understanding to the therapist and that, at the same time, the family will come to understand for themselves. Thus, as in the example above, the mother came to understand something about herself in relation to the pets and to her children.

Example: A family that was kept in constant turmoil by the older son slowly began to realize, while in therapy, that all this aggravation by him was not necessarily to get attention or only a sign of stubbornness. As incidents unfolded during family therapy, it became conspicuously clear that the boy actually relished seeing people discomfited. It was the nine-year-old sister who first described it as "you enjoy to annoy." At that point, the family came to realize and to understand that the boy actually was expressing a somewhat sadistic aspect of his nature. As long as they were not aware of it and gave him "the soft belly of their feelings," he would continue to do as he had done for many years and they would continue to suffer from it. The boy also came to understand that his "teasing and joking" was justifiably a cause for family concern.

Statements implying great understanding by children are often heard. A 12-year-old girl says to her mother, "Now I understand that you are more than just a mother. You are a person, too." To this, the nine-year-old sister added, "You have always understood me but now that I'm growing up, I'm beginning to understand you."

In résumé, the three elements found to be significant to family therapy are individuation, communication and understanding. As results along these lines unfold, families begin to pull together and the original patient often is forgotten as being the patient and becomes just one aspect of the family's concern.

TECHNIQUE

There are many details and, perhaps, rules of the game by which a family therapist practices his art:

1. For whom is family therapy suitable or when is family therapy indicated? There is probably no general statement that will cover this question, but following are thoughts concerning when family therapy is used:

a. When the family has social integrity and a tradition towards unity. A therapist should aim to take advantage of family strengths and get them mobilized and invested in a particular member who has been brought to the attention of the physician.

b. When the family, as a system, has been acutely uncomfortable and the pathology of one member is affecting the rest.

c. When the problems of one member are really based on either total family pathology or marital pathology.

d. When the problem-individual refuses to come to treatment alone or is not motivated for treatment. Family therapy often proves to be a very effective maneuver. This takes the onus off that person as being the identified patient. In return, his sense of responsibility to the family motivates him to come.

2. Which members of the family come for therapy? There have been therapists who claim that even the baby in the stroller and the family pet should be included. This over-inclusiveness seems farfetched when, for instance, the baby will not likely be involved in communications, understanding or individuation. It seems more reasonable to include all the adults living in the household (for instance, a grandmother or a maiden aunt), plus all the children about eight years of age or older. (Note: Not all the units of the family need to be seen all the time. The therapist can pick and choose any combination of family members that seems appropriate or that the family may wish to present. For instance, if a family is going to get down to the problem of a daughter's promiscuity, it may not be the best time to include the 12-year-old son and the ten-year-old daughter. Leeway always is left for the parents to come alone or for any of the youngsters to come alone, especially the "unidentified patient.")

3. Ground rules for family therapy:

a. Within the reasonable limits, all family members have the equal right to speak out. Thus, all present start "from scratch."

Physicians have discovered that, in our culture a family unit has a living strength of its own that can be vital to the survival of any one of its members. Hence, the practice of seeing total families in treatment is increasing in the field of psychiatry and, especially, child psychiatry. The author emphasizes the importance of communications within the family unit, cites interesting examples of the successful application of the strategy of family therapy and describes technique for the therapist. Dr. Tapia is Professor of Psychiatry (Child Psychiatry) at the University of Missouri School of Medicine.

b. The family will go on together until the end of the hour and no one will leave as a threat to the family. If any member chooses not to say any more, he is entitled to remain silent. (I have yet to see it.)

c. There is to be no violence of any sort, although people certainly are entitled to become angry.

d. The meeting will go on for a specified time.

e. The total number of meetings may be set or may be left indefinite with termination date to be reviewed periodically.

With this set-up, the therapist soon finds that different members will be raising complaints or posing problems that the family can't seem to resolve. One should avoid many hours of gripes and arguments and, instead, should orient the issue towards problem-solving, such as defining the problem and deciding upon an action to be taken. Thus, one should avoid wasting therapy time while, for instance, the parents nag at a 16-year-old daughter for coming in late, not picking up her clothes, not doing her chores, sassing mother, being irresponsible about clothes and money, not studying or using dirty underwear. One can help these parents focus on one of the issues and devise a definite plan for its possible resolution. Obviously, such parents don't understand their daughter or themselves for they have failed to pay attention to what has been happening. If nagging hasn't helped during the past three years, why should it help now? Isn't a new approach necessary?

That is about all there is to it. The therapist is free to roam, to take either parent's side or the children's side, to protect the "scapegoat" and, even, to cast the first stone. He may enter as a member of the family and, at one point, even accept the father as the authority and powerful guiding light—"sit at his feet." On another occasion, he may feel compelled to assume the father role and to guide the family members as though they were his children. (This sense of omnipotence is of limited use.) The therapist may assign roles to different members of the family for role playing. For instance, reversing a father and son role in which the father must try to borrow the car and the son (who is playing the role of the father) arbitrarily denies him the use of the car. Such role playing, incidentally, often allows the person to perceive the other person's point of view much more clearly.

Keeping in mind, therefore, that the members of the family are individuals often in search of their own strong identity; keeping in mind that, although living together, families may not have communicated clearly and well; and keeping in mind that, if they understand each other, they often come through as the best of families do, the therapist then moves out when the family is headed in a healing direction.

The following books are recommended for extra reading on family therapy:

Treating the Troubled Family, Nathan W. Ackerman. Basic Books, New York, 1966.

Techniques of Family Therapy, J. Haley and L. Hoffman. Basic Books, N. Y., 1967.

Exploring the Base for Family Therapy, Edited by N. W. Ackerman, F. L. Beatman, S. N. Sherman. Family Service Association of America, N. Y., 1961.

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MSMSAS Annual Convention

The Missouri State Medical Secretaries and Assistants Society invites all medical secretaries and assistants in Missouri to attend its Annual Convention at the Town House Motel and Colonial Restaurant in Cape Girardeau on April 19-20, 1969.

All members of the MSMA who would like for their secretaries or assistants to attend this meeting are urged to contact Miss Dorothy Boeschen, 704 North Sprigg, Apt. No. 5, Cape Girardeau, Mo. 63701.

D. Y. N. MURTHY, M.D., *Montreal, Canada and* **R. A. GUTHRIE, M.D.,**
W. N. WOMACK, M.Sc. *and* **R. L. JACKSON, M.D.,** *Columbia*

Beta-Lipoproteins in Children With Diabetes Mellitus

A Study

THERE ARE CONFLICTING DATA regarding the blood levels and the significance of the various lipoproteins in diabetic children. It is felt that they may bear a relationship to the development of the vascular changes. The characterization of lipoproteins by ultracentrifugation and paper electrophoresis is cumbersome and has made it difficult to perform the studies necessary to characterize the individual lipoprotein fractions or to determine their significance in diabetic children. A simple and rapid screening test[1] based upon an antigen-antibody reaction has become available to measure the beta-lipoprotein fraction. By utilizing this method, beta-lipoprotein levels were measured in 22 normal control subjects and 68 children with diabetes in order to assess the significance of the beta-lipoproteins in children with diabetes and to determine if this laboratory test could be used as an objective measure of diabetic control. The study of changes in serum lipid fractions as an index of diabetes control also has been suggested by other investigators.[2]

MATERIALS AND METHODS

Sixty-eight diabetic children who were attending the diabetic clinic at the University of Missouri were studied randomly. There were 37 boys and 31 girls. The heights of all children were within one standard deviation of the mean on the Iowa Growth Chart[3] and the weights were normal for their heights. Routine physical examinations, including fundoscopy, did not reveal vascular changes of diabetes in any of the children. All of the diabetic children were receiving a diet consisting of 60 to 80 calories per kg per day (proteins 15%-20%, carbohydrates 40%-50% and fats 35%-40%) distributed in three average-sized meals with two or three small snacks. The diet was altered with changes in physical activity. The duration of diabetes, as calculated from the time of onset of overt diabetes, ranged from a few weeks to 14 years (mean two years and three months). Eighteen children who had diabetes of recent (six to eight weeks) onset were aglycosuric and were receiving 0.05 to 0.10 u/kg/day of insulin. In 42 children with a duration of diabetes of more than eight weeks, the insulin requirement ranged from 0.5 to 2.0 u/kg/day. The degree of control of the diabetes in these children was assessed by urinary Clinitests® performed four times a day and expressed as control ratings. Children with ratings of zero to one were in excellent regulation. Control ratings from two to three indicated fair to moderate regulation.[4] Those children with a control rating of four were in poor regulation. Sera from eight

A simple and rapid screening test was used to measure beta-lipoprotein levels in 22 normal subjects and 68 diabetic children in order to assess the significance of the beta-liproproteins in children with diabetes and to determine if this test could be used as an objective measure of diabetic control.

The authors are from the Department of Pediatrics, University of Missouri Medical Center. Dr. Guthrie is Assistant Professor, Mr. Womack is Research Associate and Dr. Jackson is Professor and Chairman of the Department. Dr. Murthy, an Instructor in the Department at the time this paper was written, is now associated with Montreal Children's Hospital in Montreal, Canada.

This paper was supported in part by USPHS Grant FR 5387-04 and by USPHS Diabetic Training Grant ITI-AM 5110.

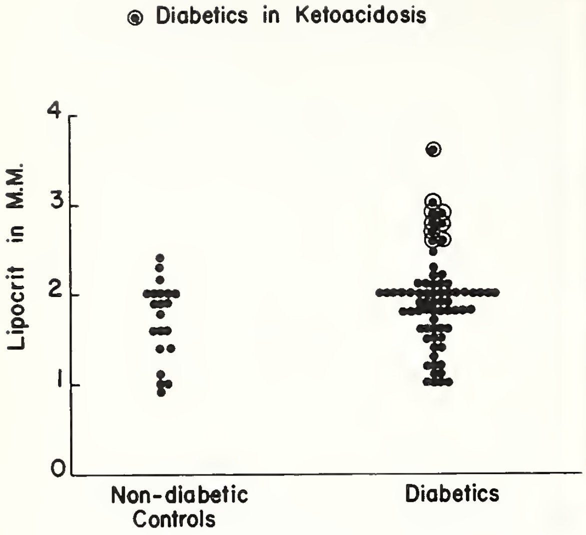

Fig. 1 Beta-lipoprotein levels (lipocrit in millimeters) in 68 diabetic children and 22 normal subjects.

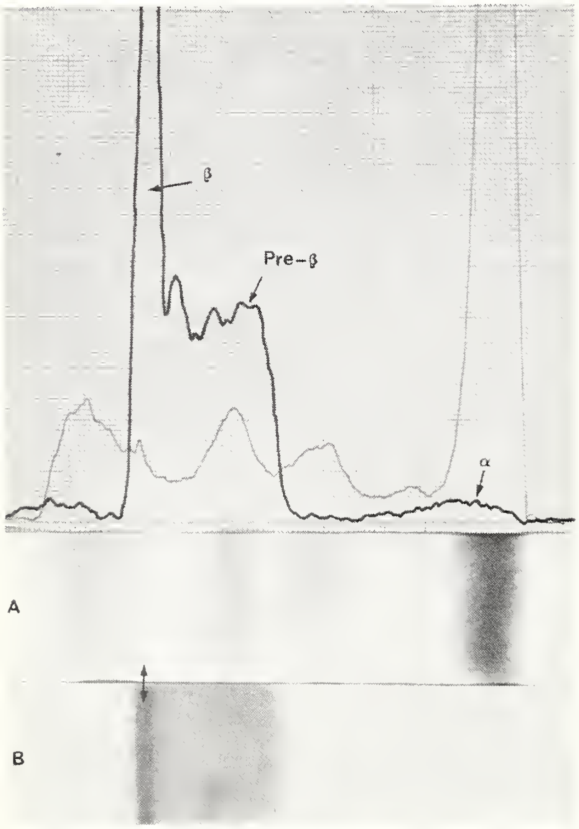

Fig. 2 Paper electrophoretic separation of serum lipoproteins. Strip B and heavy line on the graph show beta, pre-beta and alpha-lipoprotein bands stained with Sudan Black B. Strip A with light tracing indicates serum protein fractions stained with bromophenol blue. The arrows indicate the point of application of serum.

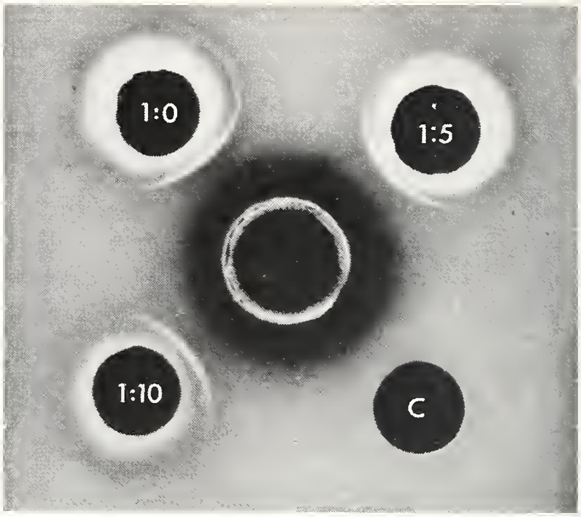

Fig. 3 Immunodiffusion using agar gel after ten hours of incubation demonstrating a single precipitin band. The center well contains beta-lipoprotein antiserum. "C" contains normal saline. The other three wells contain serum in different dilutions.

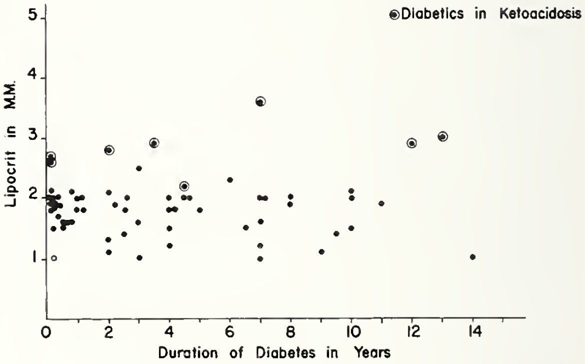

Fig. 4 Beta-lipoprotein levels (lipocrit in millimeters) and duration of diabetes.

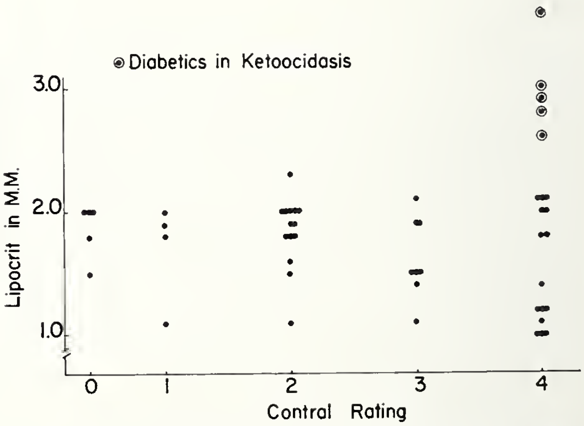

Fig. 5 Beta-lipoprotein levels (lipocrit in millimeters) and degree of control of diabetes.

diabetics while in ketosis were tested. In three of these five children, the test for beta-lipoproteins was repeated 48 to 72 hours after the recovery from ketosis.

Blood samples were obtained one half hour to one hour before the noon meal. In a few of the children, samples were obtained before the morning insulin injection. As nondiabetic controls, 22 young adult males with average heights and weights and without a family history of diabetes were included.

Beta-lipoproteins were estimated in duplicate by the Beta-L screening test.* The procedure is a reaction of beta-lipoprotein in the serum with the specific antiserum prepared against human beta-lipoproteins (lipoprotein of density less than 1.063 gm per milliliter). The procedure was carried out according to the method of Heiskell *et al.*[1] and the results are expressed in millimeters of the precipitate as lipocrit values. Paper electrophoresis[5] was used for separation of lipoprotein fractions in samples with high lipocrit values. The lipoproteins were stained with Sudan Black B. Duplicate strips were stained with bromophenol blue for serum proteins. Immunodiffusion on agar gel[6] was used to confirm the presence of the beta-lipoprotein precipitin band.

RESULTS

The lipocrit values as obtained in normal subjects and diabetic children are presented in Fig. 1. In six of the seven children who had lipocrit values above 2.5 mm, the sera were obtained during a period of diabetic ketoacidosis. In three of these six children, the lipocrit values returned to lower levels following the control of ketosis. Paper electrophoresis of lipoprotein fractions on these sera obtained during ketoacidosis showed a predominant prebeta-lipoprotein band (Fig. 2). By the immunodiffusion technique, a single beta-lipoprotein precipitin band was demonstrable after 10 hours of incubation at room temperature (Fig. 3). There was no correlation between lipocrit levels and the duration of diabetes (Fig. 4). The high lipocrit levels were from diabetics who were in ketoacidosis. Control rating and lipocrit levels were related only with respect to high lipocrit levels observed in children with ketoacidosis (Fig. 5).

DISCUSSION

These data indicate that the lipocrit is a simple and rapid screening procedure for measuring beta-lipoproteins. The beta-lipoproteins were consistently elevated in diabetics who were in ketoacidosis. With the control of ketoacidosis, the levels of beta-lipoproteins were lowered. On paper electrophoresis, the prebeta-lipoprotein band was increased in those sera which had high lipocrit values. Sera of diabetic patients have been observed to have a prebeta-lipid band on electrophoresis.[7] During diabetic ketoacidosis, hyperlipemia predominantly affecting the neutral fats has been observed.[8, 9] The lipoprotein pattern is characterized by elevation of chylomicrons and very low density lipoproteins during diabetic ketoacidosis.[10] Diabetic lipemia has been considered to be a reversible form of dietary fat-induced lipemia, acquired as a result of chronic insulin insufficiency.[11] In addition to the hyperlipemia observed in unregulated diabetic patients, essential hyperlipemia unresponsive to a low fat diet has been described.[12] Essential hyperlipemia is thought to be a familial disorder. That there is a relationship between hyperlipemia and cardiovascular disease is undisputed.[2] Which fraction or fractions of the serum lipids are related to the vascular disease is as yet unknown. This study was designed to determine if the beta-lipoprotein fraction would correlate with varying degrees of control of the diabetes and, thus, provide an objective laboratory test to study the relationship between the degree of control and the time of occurrence and rate of progression of vascular changes which develop in patients with juvenile diabetes. However, the level of beta-lipoproteins as measured by this simple and inexpensive screening procedure was not correlated with the duration of the diabetes (Fig. 4) or with the degree of control of the disease (Fig. 5). There was elevation of lipocrit levels of beta-lipoprotein only during ketoacidosis. Additional studies should be done by a similar technique to determine if changes in levels of other protein fractions of serum such as alpha 2 globulin will correlate with the degree of control of the disease.

SUMMARY

Serum beta-lipoproteins were measured by a rapid, simple, method in 68 diabetic and 22 normal subjects. No differences were seen between the two groups, except for high levels during actual ketoacidosis in the diabetics; these quickly became normal with relief of the acute condition. There was no correlation between level of beta-lipoproteins and the degree of diabetic control of patients without ketoacidosis.

(Continued on page 280)

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* Beta-L Test®, Hyland Laboratories, Los Angeles, Calif.

PATRICK D. HARRIS, Ph.D. *and* **EDWARD K. GREENWALD, Ph.D.,**
Columbia and **PAUL A. NICOLL, Ph.D.,** *Indianapolis, Ind.*

Subcutaneous Microvascular Response to Severe Hemorrhagic Shock in the Bat

RECENT REVIEWS[1, 2] emphasize the lack of specific information on microvascular behavior when animals are sufficiently stressed to produce circulatory failure (shock). Many investigators[3] have suggested that a functional breakdown of the microcirculation, either generally or within some critical organ or tissue, results from this observed failure. This concept has not been sufficiently examined because changes in microvascular behavior which might constitute a functional derangement have not been adequately separated from changes which might constitute vascular system compensation to the shock stress.

Zweifach, Lowenstein and Chambers[4] studied the mesenteric vessels in the mesoappendix and the cutaneous vessels in the interdigital web of the hind foot of the anesthetized rat under hemorrhage conditions that produced shock. In the cutaneous circulation, blood loss of 1% to 3.5% of body weight produced ischemia which resulted from vasoconstriction of larger blood vessels, 30 μ arterioles and 15 μ precapillary branches. This state remained throughout the duration of hemorrhage. In the mesenteric circulation, blood losses greater than 2.5% initiated constriction of 60 μ arterioles, larger veins and, eventually, the terminal portions of the arterial tree. However, the smaller venules (50 μ to 70 μ) did not show generalized vasoconstriction. Bellman, Lombat and Fine[5] observed the mesenteric vessels in anesthetized rabbits and reported a loss of precapillary vessel constriction as shock developed. Since arteriolar and venular vasomotion are rarely observed in the exposed mesentery of the anesthetized rabbit, the hypotensive hemorrhagic stress produced no evident change in vasomotion.

This is a report of preliminary investigations of subcutaneous microvasculature responses in unanesthetized bats when stressed with severe hemorrhagic shock. Specifically, it provides information on subcutaneous microvascular responses to hemorrhagic shock in the bat for comparison with the observations reported by Zweifach, Lowenstein and Chambers for the anesthetized rat.

METHODS

Modification of a previously described bat wing preparation[6] permitted application of hypovolemic hypotensive stress and simultaneous observation of the behavior of the minute vessels in the wing. Two series of experiments were conducted.

In the first series, 6 to 10 gm bats *(myotis lucifugus)* were anesthetized to surgical levels with intraperitoneal nembutal (30 mg/kg) and one carotid artery was exposed and cannulated for pressure measurements and controlled hemorrhage. A three-way stopcock connected the carotid cannula to one end of a horizontal graduated capillary tube and to one outlet of a Statham P23De pressure transducer. The second outlet of the pressure transducer was connected to a micrometer-driven syringe which allowed cannula flushing and, also, adjustment of an air-fluid interface in the capillary tube. The other end of the horizontal tube was connected to a large volume air reservoir in which the pressure was arbitrarily set at 20 mm Hg. The carotid cannula, pressure transducer, micrometer syringe and horizontal tube were filled with a heparinized salt solution (Buffered to pH 7.2) so that an air-fluid interface was established in the horizontal tube at an arbitrary zero mark near the cannula.

The experimental protocol for this first series consisted of a 30-minute control period followed by arbitrarily chosen, variable duration hemorrhage periods during which the carotid artery pressure was reduced to and held at 20 mm Hg. During the hemorrhage period, the hemorrhaged volume was followed as a function of time by observation of the shift in the air-fluid interface within the horizontal capillary tube. Heart rates were measured at arbitrarily chosen instances by disconnecting the 20 mm Hg hypotensive forcing for brief time periods (less than two minutes) and counting the blood pressure fluctuations which resulted from heartbeat. Closed circuit television was used to record the microscopic image of a small artery (20 μ to 30 μ) and the parallel vein (60 μ to 70 μ) on a video tape recorder. Vessel diameters were determined by marking and measuring the position of vessel walls on a calibrated television monitor screen during subsequent video tape playback.

In the second experimental series, a novacaine block in the axillary region permitted cannulation of a radial artery for pressure recording and controlled hemorrhage in the otherwise unanesthetized bat. Instead of a horizontal capillary tube and a large volume air reservoir, the experimental setup utilized a servomotor-driven syringe to maintain radial artery pressure at 20 mm Hg and to measure hemorrhaged volume during the hemorrhage period. In addition, the experimental protocol was modified and standardized to a 30-minute control period, a 65-minute hemorrhage period at a maintained radial artery pressure of 20 mm Hg and a 60-minute posthemorrhage observational period following forced reinfusion of the hemorrhaged volume. This reinfusion was accomplished within a five-minute period by elevation of radial artery pressure above prehemorrhage control values. Small artery and vein diameters were measured, as previously described, in the wing which was not cannulated. In addition to these variables, venous vasomotion was quantitated in this series by counting the number of vein contractions which occurred each minute.

Results

Representative data for the first series of experiments in which anesthetized bats were hemorrhaged through a carotid cannula are presented in Fig. 1. In this figure, the bottom graph shows the hemorrhaged volume as a function of time for four individual experiments. In all four experiments, the hemorrhaged volume increased rapidly for the first 30 minutes, then leveled off for an extended but variable time and, finally, decreased gradually as blood was slowly reinfused to maintain carotid artery pressure at 20 mm Hg. The simultaneous vein, artery and heart rate data for hemorrhaged volume curve #4 are shown in the upper three graphs. In the top graph, the maximum (labelled as the Dilatation Phase) and minimum (Constriction Phase) diameters for each cycle of venous vasomotion are shown. Both the maximum and minimum diameters of the vein decreased with the onset of hemorrhage, but then dilated slightly 100 minutes after initiation of hemorrhage. Venous vasomotion continued for approximately six hours. The artery diameter initially showed little change, but then dilated after four hours of hemorrhage. Heart rate showed a bradycardia which persisted throughout the hemorrhage condition.

In the second series, unanesthetized animals were hemorrhaged through a radial artery cannula. Table 1 summarizes the heart rate data. The first column identifies the animal, the second and third columns give the average radial arterial pressure and heart rate for the control period and the last four columns give the initial, maximum, minimum and final heart rates for the hemorrhage period during which radial artery pressure was maintained at 20 mm Hg. The mean radial arterial pressure was 112.5 ± a standard deviation of 17.5 mm Hg and, correspondingly, the heart rate was 450 ± 114 beats per minute. Upon application of hemorrhagic hypotension, the heart rate decreased in five cases, but this initial decrease was not sta-

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This is a report of preliminary investigations of subcutaneous microvascular responses in anesthetized and unanesthetized bats when stressed with severe hemorrhagic shock. The investigations provided information for comparison with previously-reported observations of the same conditions in the anesthetized rat. The overall results suggest to the authors that they may have discovered significant clues to the therapeutic treatment of hemorrhagic shock in humans. Drs. Harris and Greenwald are from the Microcirculatory Systems Research Group, Departments of Physiology and Electrical Engineering and the Space Science Research Center at the University of Missouri Dr. Nicoll is from the Department of Physiology, Indiana University Medical Center. This work was supported in part by PHS Grants HE 08618, HE 06308 and HE 20422-01.

TABLE 1

HEART RATE DATA FOR UNANESTHETIZED BATS HEMORRHAGED THROUGH A RADIAL ARTERY CANNULA

Animal Band Number	ART. PRESS. MM HG	HEART RATE BEATS/MIN.	*Hemorrhage Period Heart Rates*			
	Control Period		INITIAL	MAXIMUM	MINIMUM	FINAL
61130	115	480	380	420	140	140
61131	145	400	620	620	480	480
61202	100	440	400	400	260	400
61205	110	540	500	500	220	360
61206	110	260	160	380	120	300
61207	95	580	480	640	440	520

tistically significant (paired comparison, $p > .05$) as one animal showed a marked increase. Likewise, the minimum and final average heart rates were less than controls, but not significantly so since there was large variation in the responses for individual animals.

Representative data for the second series of experiments are presented in Fig. 2. For all variables, the abscissa is time in minutes with zero, 30, and 95 corresponding to the start of the control, hemorrhage and post-hemorrhage periods, respectively. Small artery and vein diameters and venous vasomotion are shown as a fraction of the average values during the control period (26.7 μ, 58 μ and 27.6 contractions per minute, respectively). The graph for artery diameter indicates periods of intense constriction which gave way to dilatation during the observed post-hemorrhage period. The vein diameter graph primarily indicates dilatation throughout the hemorrhage period with less intense dilatation during the posthemorrhage period. The venous vasomotion graph indicates a severe reduction in vasomotion frequency during the hemorrhage period. Following the forced reinfusion, venous vasomotion frequency increased to above-control values. Corresponding with these data, intense hemodilution was visually observed ten to 15 minutes after initiation of the hemorrhage period.

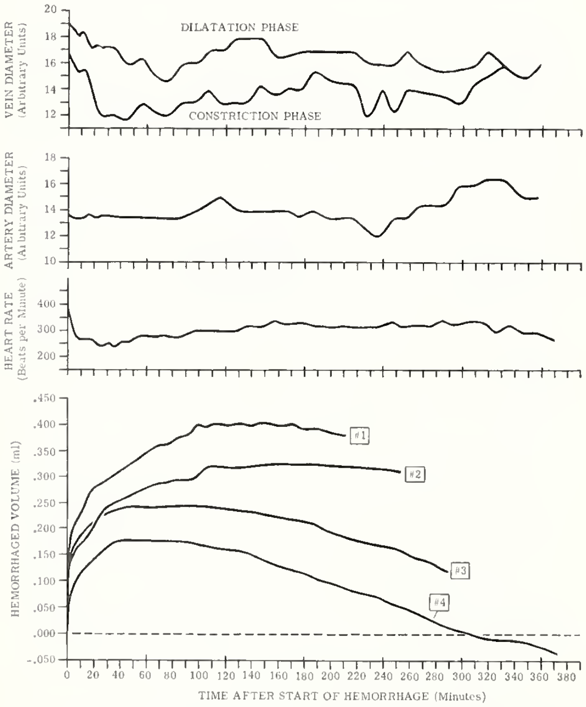

Fig. 1 Representative data for anesthetized bats hemorrhaged through a carotid cannula. In descending order, the upper graphs show the vein, artery and heart rate data obtained simultaneously with hemorrhaged volume curve #4 in the lower graph. In the top graph, the maximum and minimum diameters for each cycle of venous vasomotion are labelled as Dilatation and Constriction Phases, respectively.

Discussion

In both the anesthetized (Fig. 1) and unanesthetized (Table 1) series, the heart rate data did not show the tachycardia which was anticipated as a baroreceptor reflex response to the hypotensive forcing. Although not statistically significant, the majority of these preliminary data showed a bradycardia. The mechanism for this decrease is unknown, but it most likely would be associated with a marked reduction in venous return which undoubtedly accompanies the massive hemorrhage resulting from such a severe hypotensive forcing.

In the unanesthetized series, the artery (Fig. 2) showed intervals of prolonged intense constriction during the first 15 minutes of the hemorrhage period. Although these data do not allow conclusions about peripheral resistance in general, they are consistent with the concept of an increase in subcutaneous peripheral vascular

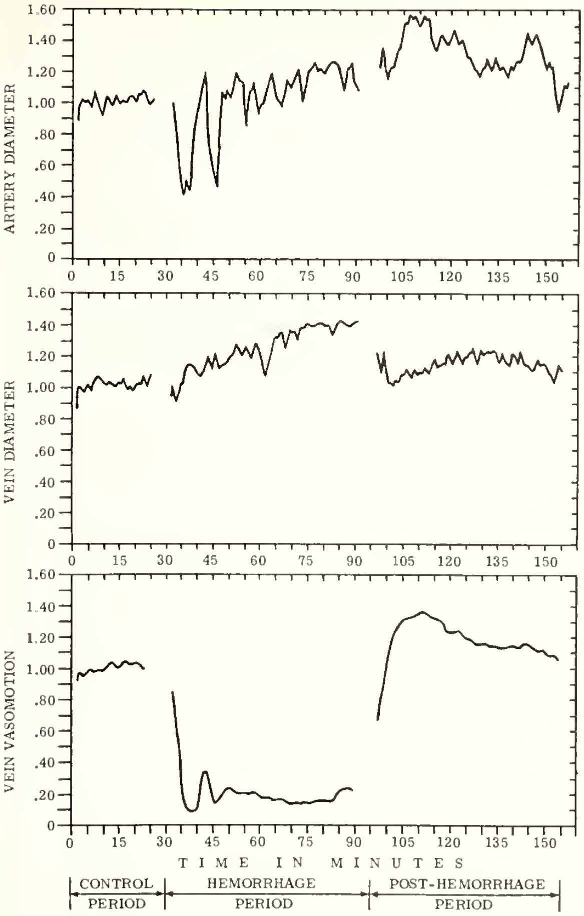

Fig. 2 Small artery and vein diameters and venous vasomotion for unanesthetized bats hemorrhaged through a radial artery cannula. All three variables are expressed as a fraction of their respective average values during the control period. A change in reels of video tape necessitated missed data during the intervals of 25 to 32 minutes and 90 to 97 minutes. Hemorrhage was initiated at 30 minutes and the hemorrhaged volume was rapidly reinfused during the interval of 95 to 100 minutes.

resistance as one compensatory attempt to raise central blood pressure. In addition, intense artery constriction is compatible with the concept of reduced subcutaneous capillary pressure as a compensatory attempt to transfer fluid from the extravascular to the intravascular compartment. The observation that extreme hemodilution occurred within ten to 15 minutes after initiation of the hemorrhage period supports this latter conclusion. Thus, these data suggest that small subcutaneous arteries are involved in the compensatory mechanisms for hemorrhagic shock. Absence of small artery constriction later in the hemorrhage period suggests that small subcutaneous arteries may have reduced their contribution to central pressure compensation in favor of compensation for local ischemia. The occurrence of small artery constriction with hypotension cannot logically be interpreted as an "autoregulatory" response to "myogenic stimuli" since such a concept predicts dilatation for reduced intra-arterial pressure.

The observed vein dilatation with hemorrhage (Fig. 2) suggests a reduced postcapillary resistance. This also tends to reduce capillary pressure and serves as a compensatory mechanism to shift fluid into the vascular system in response to reduced blood volume and hypotension. However, the effect of the reduction in venous vasomotion frequency is unknown. It is difficult to interpret this reduction as a compensatory mechanism if the hypothesis that venous vasomotion aids venous return to the heart is correct. It is reasonable to expect a reduction in venous vasomotion frequency with onset of hypotension since Wiederhielm[7] demonstrated a direct relationship between frequency and intraluminal pressure. This reduction may represent an indirect adverse forcing on the cardiovascular system.

In general, our vessel diameter data for the unanesthetized series more closely reproduce Zweifach's[4] observations on the rat mesenteric preparation while our vessel diameter data for the anesthetized series (Fig. 1) more closely reproduce his data for the cutaneous vessels in the interdigital web of the rat's hind foot. At the present, one cannot advance a specific reason for the difference in response between the first and second series and between our data and those of Zweifach and his coworkers. Between the two preliminary series reported here, there were major changes in the surgical procedures, experimental protocol and anesthesia. Between our work and Zweifach's, there is an obvious species difference and a difference in the protocol for the experimental forcings. The severe hypotensive forcing used in this work was chosen arbitrarily to give hemorrhaged volumes which approximated those reported by Zweifach (.2 ml for a 10 gm bat corresponds to the 2% hemorrhage used by Zweifach). This hypotensive forcing apparently was tolerated by the bats since the reinfused unanesthetized bats in the second experimental series survived a 24-hour post-stress observational period. The species difference may be quite significant since bats have certain hibernating abilities which may include adaptive mechanisms that are activated by the hemorrhagic hypotensive forcing. This last consideration, for example, may account for the unusual bradycardia observed in these experiments and for the large variation in control heart rates for different animals (Table 1). If hibernating mechanisms provide additional resistance to hemorrhagic hypotension, then hemorrhage experiments on precisely defined hibernating and nonhibernating bats may clarify the variation in our data and may provide significant clues to therapeutic treatment of hemorrhagic shock in humans.

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Beta-Lipoproteins

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Unwanted sound—in other words, noise—and its threat to health will be examined in detail April 28 and 29 at an American Medical Association conference in Chicago at the Drake Hotel.

Increasing concern in this country and abroad about "noise pollution" promoted AMA's Council on Environmental and Public Health to make this problem the subject of the Sixth Congress on Environmental Health. Subjects include noise-induced hearing loss, effects of noise on sleep, noise sources, psychophysical and sociometric aspects of noise, role of the physician in workmen's compensation cases involving noise, control and prevention of noise, and facts and myths about effects of noise on human physiological systems other than the auditory system.

Inquiries about the Sixth Congress on Environmental Health Problems may be directed to AMA's Department of Environmental Health, 535 North Dearborn St., Chicago, Ill. 60610.

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The Juvenile Delinquent and Delinquency

THE TERM *juvenile delinquency* is a legal term and refers to "the violation of a law or municipal ordinance by youths of juvenile age." It also refers to conduct on the part of such persons which interferes with the rights of others or is a menace to the welfare of the community. The acts, of course, are antisocial or socially unacceptable for that age group. These acts include running away, refusing to attend school, drinking and other acts which, at times, may not be considered antisocial if carried out by adults.

The juvenile delinquent certainly is not the only child who indulges in delinquency since this behavior may be seen in a great variety of personalities. In spite of the fact that the causes of antisocial behavior are unclear and actually in dispute, one can be reasonably safe in saying that certain stresses, biological or environmental or both, will tend to increase the chances of antisocial behaviors occurring in children. Some of these stresses are mental illness, certain types of physical disease, social or family stresses or the learning of a pattern of behavior which becomes part and parcel of a disordered character. Even though it generally is accepted that the incidence of mental disease in juvenile delinquents is approximately the same as that occurring in the general population, one should, nevertheless, always look for an emotional problem as a basis for the acting up. The following broad classifications will cover some of the common underlying causes which are, *at times*, the primary reasons for delinquent behavior:

I. NEUROSIS

A good example of antisocial behavior due to neurotic conflict is that of the boy who acts out in a sexually deviant way. This may take the form of molesting behavior, homosexuality, exhibitionism, peeping or a variety of other unacceptable sexual practices which are a reflection of the offender's abnormal sexual development. This type of behavior is much more common in the young pubertal adolescent and sometimes is a product of rigid Victorian upbringing coupled with ignorance on the part of the offender.

Most sexually deviant youngsters are found to have a rather characteristic childhood with a mother who is aggressive, protective, dominant and very much in control of the family. The father (if present) is passive, uninvolved and distant, presenting a rather weak figure in the eyes of both the mother and child. It is felt that the important etiological factor is a strong identification of the child with the mother, rather than the father, and the subsequent nonacceptance of the male role by the child. A biological cause for homosexuality has been persistently advanced by some groups, especially the homosexuals themselves, but no evidence whatever has been found to support this contention.

Another example of neurotic conflict is displayed by the hostile child who has been rejected by his parents and acts out his bitterness as a means of getting parental attention or of getting revenge. (For some children, hostile parental attention is better than no attention at all.)

II. PSYCHOSIS

In this group, the underlying problem is a psychotic illness and the delinquency is only a symptom of this derangement. This child will be antisocial because of complete lack of control over impulses, a gross lack of judgment and a failure to evaluate reality correctly. There are two common types: the pseudopsychopathic and the schizophrenic. The picture of delinquency which each presents, however, usually is different. The schizophrenic may commit a variety of antisocial acts, but, when given a mental examination, it is obvious that his basic difficulty lies in a psychotic adjustment to life with a characteristic thinking disorder predominating. The pseudopsychopathic schizophrenic, on the other hand, very often is an accomplished criminal. It is only after intensive and sometimes longstanding observation that one can say definitely that he is psychotic.

At this point, it would be well to mention that occasionally one sees an institutionalized delinquent who frankly admits to auditory or visual hallucinations or both; who apparently believes that these are real while, at the same time, saying it is impossible to explain the hallucinations logically; and who, in the great majority of cases, clearly is not psychotic at the time of interview. In my experience, this type of child usually is from a deprived home where disorganized living was the rule and where logical thinking and reality testing clearly was not a consistent part of his experience. These particular children often are intellectually retarded and sometimes the family is given to superstitions, back-country evangelism and easy suggestibility. These children tend to fit into the category of borderline cases, with a tendency to slip in and out of touch with reality depending upon the environmental stresses being applied at that particular time. Needless to say, they do poorly in solitary detention or "adjustment units" and, at best, have a precarious emotional adjustment throughout life.

III. Adjustment Reactions

Adjustment reactions commonly are the cause of conduct disturbances in children and adolescents. These reactions might be defined as a person's attempt to cope with stresses and pressures being applied to him from the environment. The resistance to the pressures may be overt or covert and, in many instances, is a combination of both. The overt response to stresses, which are real or imagined, may be manifested by running away from home, identifying with a group of unacceptable companions, refusing to conform to realistic or unrealistic demands of parents or substitute parents and, eventually, often coming into conflict with the law. Other symptoms of adjustment reactions might well be manifested in the form of antisocial behavior such as stealing, fighting and destructiveness, which might be a form of deriving satisfaction from doing something of which the child knows the parent completely disapproves and which ultimately will make the parent rather uncomfortable. Often, an attempt to "get even" is plainly the reason for the acting up.

Conflicted family settings with constant quarreling and threat of dissolution of the family ties, at times, will create resentment in the child to such extent that anger becomes manifested as antisocial behavior.

IV. Brain Dysfunction (Brain damage, maturational lag, hyperkinetic)

Some children who have a certain type of brain abnormality commonly called Minimal Brain Damage or Minimal Brain Dysfunction may react to this central nervous system insult by a syndrome of hyperactivity, short attention span, impulsivness, distractability, irritability and other symptoms such as cruelty, destructiveness, explosive outburst, poor judgment and inability to conform or relate with peers. Very often, another part of this entity is a specific learning disability such as dyslexia (difficulty in reading), aphasia (difficulty in understanding or expressing language), acalculia (difficulty in calculation) and other specific disabilities of communication or learning. This syndrome often leads to a rejection of and sense of isolation by the victim which may manifest itself by fighting, defiance of authority, rudeness and other socially unacceptable behavior. Some of these children go on to become antisocial in character (these will be discussed later). One important effect of the brain dysfunction is damage to the ability to control impulses (hence, to use good judgment), which often gets this child into trouble. For example, if such a boy has an impulse to take something which does not belong to him, it is often very difficult for him to resist in spite of conscience, good background, good training, etc. It is important to understand that in these cases the basic problem is inability to control one's impulses, to use good judgment and to learn. First of all, it is an organic problem, with very little, if any, ability to use the inner controls of conscience, which may be present.

Another very important fact which cannot be overlooked is the very high incidence of both learning disabilities and academic retardation in delinquents. This incidence has been reported in some studies as high as 75% (Bender). Does a learning disability lead to academic frustration and retardation and, ultimately, to acting up behavior *or* does the delinquent just happen to have a high incidence of learning disability?

Incidentally, the juvenile who is under the influence of "glue sniffing," alcohol, marijuana, LSD or other cerebral intoxicants loses his judgment, critical reasoning powers and abilities to discriminate. His inhibitions are dissolved and, hence, he is apt to act up in an antisocial way more readily than usual.

V. Unsocialized Aggressive Reaction (Antisocial personality in the adult)

This is a rather distinct group of personality or character disorders which needs a clear distinction from the gang or social delinquent. I would feel that this is a very important distinction to make, especially for professionals who come into daily contact with these children, since the management and prognosis are different. For this reason, more time will be spent in developing the two mentioned profiles and in trying to point out the distinct differences which could be of help in separating and understanding the groups.

The unsocialized aggressive child is a child who hates the world and knows the world hates him in return. Typically, he is defiant, deliberately destructive of property of others and delights in hurting others. He is a bully, prone to quarreling, fighting or tricking others. He is boastful, selfish, often jealous and openly antagonistic towards authority, his teachers and other significant people in his environment. He refuses to accept any blame for his misdeeds, is inclined to blame others and often turns on people who have tried to help. He is suspicious, negative, rude and evasive. He does not forget or forgive easily and often is found seeking vengeance for what others might well consider to be rather petty things. His language often is profane and obscene. He is deceitful, is cruel to animals and people and is without guilt, shame or remorse. He is distinguished by his hostility and his intolerance of frustration. Without a doubt, he lacks basic socialization and his only concern with society seems to be to hurt it and extract from it as much as he possibly can without giving anything in return.

In summary then, the basic points in the unsocialized aggressive are as follows:

1. He is a lone wolf and is avoided by his peers.
2. There is very little, if any, shame, guilt or remorse.
3. He is remorseful only when he is caught. At these times, it is only because he realizes he may lose his freedom.
4. He does not profit from experience. That is to say, he keeps repeating the same mistakes over and over again.
5. He lacks responsibility and judgment.
6. He can rationalize his behavior so that it appears reasonable.

After defining delinquency in juveniles, the author cites stresses that tend to increase the chances for antisocial behavior in children and classifies the emotional problems he has observed to be the common underlying causes for that behavior. In regard to treatment, he urges that the delinquent be managed on an individual basis. Dr. Chapel is Assistant Professor, Department of Psychiatry (Child), University of Missouri School of Medicine.

Etiology of the Unsocialized Aggressive: This personality has been found typically to be the product of parental rejection, particularly by the mother. He was never wanted in his home and this dates back to, or even before, birth. He may have been placed in an institution or a series of foster homes where time and time again he met with the same type of rejection and abuse. The basic problem here seems to be that this child has not learned how to relate significantly with other people, is angry with and suspicious of everything with whom he comes into contact and is bound that he will get revenge. As he grows up, he learns well the pattern of behavior so characteristic of his adult counterpart, coldly and matter-of-factly dealing with society as one would with a dangerous but not too bright adversary.

A variant type is that of the spoiled child whose parents may well have been shielding and overprotective of the boy, and in spite of their rejection, may time and time again have bought his way out of trouble to protect their name. The home usually is that of the middle socio-economic level so that the boy does not often have foster home and institutional experiences. He is not asked at home to assume responsibility, he is not forced to adhere to consistent limits, he is not taught to respect himself or others. He gets what he wants either from his parents or from the community, and he does so without regard to the rights of others.

Some studies have found the "lone wolf" type of delinquent to be recidivist more often than other types. He also tends generally to be of higher intellectual ability. Unfortunately, studies also show that the prognosis for treatment or change is poor. It has been postulated, principally by the psychoanalyst, that this type of delinquent suffers from an unconscious conflict which forces him to repetitively seek expiation for his sins by repeatedly coming into conflict with the law. I would disagree and say that this boy's basic problem, rather, is his *lack* of conflict and that his antisocial behavior is repetitive for that very reason. That is to say, antisocial behavior creates no conflict in this boy and, hence, he has no real inner reason to stop.

A second variant group is described less frequently but certainly contributes no small share of the total delinquency population. The emotionally disturbed but aggressive child often is cruel, sadistic and destructive, with many of the symptoms seen in the aggressive unsocialized child, such as obscenity and aloneness. He, too, like the undomesticated boy, is apt to feel persecuted and is suspicious, crafty and projects blame. In some respects, however, he is very different from the unsocialized child in that he shows a tendency to overdependency, is given to attention-getting behavior, is immature and unstable emotionally and is inclined to hostile reactions which he manifests through sullenness, temper tantrums and explosive behavior. He may have oddities of behavior manifested in silly laughter and silly behavior and often has fears and some phobias. His sexual behavior more often is that of the passive homosexual or the solitary masturbator. He is notable for his lack of organization or for his total disorganization (which may reflect the probability that he never has had organization) and his very poor judgment. Depression is a common trait in this boy and he tends to be seclusive, have feelings of inferiority and be overly sensitive. Suicidal threats or gestures are not uncommon. One glaring difference that sets him apart from the cold, calculating aggressive delinquent is the very real remorse present after acting up. This often is expressed in part by verbalizations and depressed behavior. He can verbalize that "there is something wrong with me" and promises to do better, but very soon he is in trouble again. It is very reminiscent of the remorse and guilt expressed by the preadolescent brain damaged child who has acted up impulsively and later realizes what he has done. In fact, it has led me to wonder just how many of the emotionally disturbed, aggressive delinquents are actually the end product of a previously damaged or poorly functioning prepubertal central nervous system (see Brain Disease). Let there be no doubt that these children just described are antisocial in every sense of the term, but they are different antisocials from the aggressive, lone wolves who make up the pure unsocialized aggressive. This is a different breed of delinquent, with poor emotional control, poor organization and poor social integration.

The disturbed delinquent's background often is that of living in families other than his own and, especially, that of an institutional background. He often is illegitimate and is unwanted more frequently than individuals from either of the other two groups. His parents are more likely to be known for sexual immorality, emotional instability or, even, psychotic adjustment. He has had extremely severe emotional deprivation.

VI. Group Delinquent Reaction (Social maladjustments without manifest psychiatric disorder)

The "group" delinquent boy is the traditional "gang boy" who is quite well socialized within his own peer group and within his own gang, but who preys on the "outgroup." He is not vicious or cruel, as a rule, although he is muscular, and well able to defend himself. He has deep loyalties to members of his own gang and, unlike the unsocialized child, is not easily convinced that he should rat on anyone else in his group. He runs with the gang, tends to be led or leads into antisocial behavior, lies at the drop of a hat, will truant from school and from home at the slightest excuse and has had police arrests for stealing and other antisocial behavior, such as loitering, drinking, etc. Actually, within his own little group, this boy appears to be well socialized, can take responsibility, assume leadership, have meaningful relationships and, to all intents and purposes, be a successful citizen within his own little community. Incidentally, the most notorious examples of the adult counterpart of these gang delinquents are members of the Cosa Nostra who appear to be quite successful financially, have earned the respect of some sections of their community and are quite good businessmen.

The big difference between the group delinquent (but socialized boy) and his female counterpart is that there is a much greater prominence of sexual acting out for the girl than there is for the boy. The girls do less stealing although truancy from home and from school, lying and staying out late at night are common traits.

In summary then, the last three groups of delinquents have many traits in common, but they are separated, one from the other, by certain specific traits which are unmistakable. The unsocialized child is an aggressive, hostile loner without conscience and without guilt, who fails to profit from experience. The emotionally disturbed delinquent is a disorganized child with many of the traits of the antisocial but with over-dependency, fears, emotional instability, attention-getting behavior and a propensity for passive homosexuality. The socialized or gang delinquent, within his own group, is highly loyal, dependable and responsible; his antisocial behavior is directed towards the "out group" and he lives by his wits; he usually comes from a large family, is better accepted in his home and tends to have close bonds with it.

TREATMENT

Ideally, the treatment of choice is that which attacks the underlying cause. In many cases, however, the chronicity of the problem dooms this to failure. Generally speaking, the neurotic, psychotic and the reactor to stress respond better when the underlying pathology is dealt with. In the case of the brain damaged child, if he is preadolescent, his behavior may improve markedly both in the classroom and socially when he is placed on adequate doses of a cerebral stimulant (amphetamine or methylphenidate).

The children who really present problems in management are the unsocialized aggressives and the group delinquents. I will deal with these separately.

The unsocialized aggressive is a maladaptive delinquent. That is to say his pattern of reaction does not allow him to make a satisfactory adjustment to life. He finds the repeated frustrations of life intolerable and strikes out blindly at the world, repeatedly running afoul of the law. His offenses are replete with examples of his inability to profit from experience. This individual repeatedly commits antisocial acts, not because of inner conflict but because he has no conflict to inhibit his impulses. In fact, his impulse control is defective and he takes what he wants, regardless of the consequences. He is unable to delay gratification for any meaningful length of time. The treatment in this particular individual, therefore, is to commit him to an institution in which the aim is to try to help him develop some conscience and some feeling of guilt which will serve to give him inhibitions. One hopes to establish in him some controls from within by applying, for variable lengths of times, controls from without. One does this essentially in the same as one would with a child. You impose reasonable and firm limitations. It requires vast patience and understanding. Eventually, one would hope that this boy can be accorded graduated responsibilities according to his ability, until ultimately he can be trusted to control himself.

The gang delinquent already has a conscience and strong loyalty and is able to take responsibilities, but these are only operative within his own subculture. It is, therefore, the aim of treatment to have him extend these qualities to the "out group." In this respect, one attempts to have this boy identify with someone from the out group. One must shake his confidence that he can get away with crime and, of course, this function is performed by the police and probation officers. This type of boy may respond to manipulations of the group in a direction more socially acceptable, i.e., police clubs, but, at times, it also becomes necessary to separate him from his group through institutionalization. It is imperative, however, to realize that his success in his own gang gives him a sense of security and a sense of accomplishment which must be replaced by some other achievement when he is removed from the gang. The learning of a skill or trade often accomplishes this. Incidentally, the gang delinquent often does well in the armed forces, since this gives him a new group with which to identify. (Marriage to a stable woman also helps develop responsibility in some of them and, hence, "cures.")

In conclusion, I would like to repeat that even though we are not certain of the causes of juvenile delinquency, we do know *some* stresses will make the pattern of behavior worse and we cannot make much progress in delinquency management if we insist upon fitting all delinquents into the same mold and treating them all alike. It makes more sense to look at each individual and program for him as realistically and practically as possible.

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Assessment of Interpersonal Perception of the Psychiatric Patient by Medical Students

A Study

During the past several years, research in the area of interpersonal perception has been extensive. The term *interpersonal perception* in this paper will refer to the attribution of characteristics, e.g., emotions and behavior traits, to other people. Following Cline,[1] it is seen as interpersonal because the situation involves a double interaction between perceiver (judge, observer or rater) and "other," as usually occurs in real life.

Recent reviews and critical evaluations[1, 2, 3] indicate that the problem areas selected and the methodologies employed to study interpersonal perception have been quite varied. Cronbach[2] and Hatch,[4] for example, have critically studied the methodological problems involved in measuring the accuracy of judgment in interpersonal situations, while Altrocchi[5] and Berkowitz[6] have focussed upon the relationship between the personality characteristics of the perceiver and his perception of "others."

While the apparent inconsistencies and contradictions which can readily be found in the current research raise uncertainty regarding the nature of the critical or important factors in interpersonal perception, it is clear, as Cline[1] has stated, that effective functioning in a great variety of occupations appears to be related to the ability to perceive others. This latter point would seem to have particular relevance to the medical profession, in which the ability to accurately perceive and understand patients appears to play a most important role in effective professional functioning.

Recent studies by Marks[7] and Miller[8] suggest that agreement among professional judges (psychiatrists, psychologists and teachers) who are rating children's behavior using a common Q-sort instrument is very low. Thus, we seem to be faced with perceptual and conceptual dissonance among trained professionals which raised serious question about the validity of communicating and, ultimately, teaching their observations to others.

Since sensitivity to interpersonal behavior is an integral aspect of the training a medical student receives on his psychiatric clerkship, the present study was designed to objectively assess a medical student's ability to perceive and describe the emotionally ill patient and to determine improvement in this aspect of the student's functioning as a result of training on a psychiatric service. A Q-sort instrument was used as the basis for the student's description of the patient.

Method and Procedure

Eighteen third- and fourth-year medical students were selected as they were assigned routinely to the psychiatric service to be observe-raters in this study. The medical students had been assigned in groups of six to spend nine weeks in full-time duty on the psychiatric inpatient service. While this was the initial full-time clerkship on psychiatry for these students, all had received lectures in psychiatry during their preclinical years and, also, had interviewed, under supervision, several psychiatric outpatients. A senior resident in psychiatry, who was engaged in full-time duty on the same service, was selected as a criterion source.

For the purposes of this study, each student was required to interview two psychiatric patients and to describe them, using a specialized Q-sort technique. The first assessment was during the first or second week of the student's clerkship, and the second was at least three weeks later. The resident interviewed and described each patient seen by the students not more than 24 hours after each student interview in the same manner. The students were informed that this procedure was part of a research project, but they did not study the Q-sort items prior to seeing their first patient. The Q-sort descriptions by the resident provided the criterion measures to which the students' descriptions were compared.

Patients were assigned randomly to the students in each group. Those selected for this study were the first and the last new admissions assigned to each student while he was on the clerkship. Each patient was described by the student on the basis of a single, nondirective interview which lasted at least 30 minutes but not more than one hour. This interview took place within 48 hours after admission to the hospital. As it turned out, the patient population in this study consisted of 12 male and 24 female psychiatric inpatients who represented four main diagnostic categories, as follows: psychosis (N=8), neurosis (N=17), character or behavior disorder (N=5) and organic brain syndrome (N=6).

The Q-sort technique selected for use in this study was the Psychiatric Evaluation Index (P.E.I.). This is a balanced, empirically derived Q-sort instrument containing 70 statements representing the typical presenting complaints, symptoms, signs and problems of psychiatric patients as stated in their own language, amenable to easy computer analysis.[9, 10]

Each student's Q-sort description was correlated with the resident's Q-sort description of the same patient. It was hypothesized that the student's ability to perceive and describe a psychiatric patient would improve during the course of his clerkship period and that this improvement would be revealed in a more positive correlation with the resident's description on the second patient evaluation as compared to the first one.

Each medical student also was independently ranked on a five-point rating scale in terms of improvement or lack of improvement in his general clinical ability with psychiatric patients. This was a composite ranking performed by three staff members who had close supervisory contact with the students and was accomplished for each student at the end of his clerkship period. The staff members were asked to rate the improvement that each student had shown and to avoid rating them on the differing abilities they may have shown among themselves during their clerkship duties. It was then possible to rank order the entire group of students on the basis of the ratings they attained by the staff members. These data were obtained to determine if the improvement of the students as judged by staff members was related to improvement in their perceptive ability as measured by the Q-sort data.

The final phase of this study involved obtaining Q-sort descriptions by the resident, and by random sample of half of the medical students in each clerkship group, of the "typical psychiatric patient." In this case, the raters were asked to describe what each considered to be his conception of the modal or typical psychiatric inpatient. These latter data were obtained when all of the other Q-sort descriptions were completed and were used in an attempt to assess the nature of stereotypy of description which might be in operation among the observer-raters in this study, that is, their tendency to use an undifferentiated stereotype of "psychiatric patients" in their evaluation of a particular psychiatric patient.

Results

Table 1 shows the Q-sort correlations by student, between each medical student and the resident on each evaluation and (after Z transformation) the average correlation for the total group of students on each occasion. The average time between the first and second ocsasions was 26 days, with a range of 14 to 40 days. In addition, two rankings of the students are shown, the first based upon the degree of positive change in correlation between the student and the resident from the first to the second evalu-

TABLE 1

STUDENT-RESIDENT Q-SORT CORRELATIONS AND STUDENT RANKINGS

Student	*First Occasion*	*Second Occasion*	*Change* RANK (R1)†	*Rating* RANK (R2)
1	.52	.70	6	13
2	.25	.68	2	11
3	.22	.39	8	18
4	.68	.59	15	6.5
5	.62	.50	16	6.5
6	.73	.59	17	4
7	.49	.51	10	12
8	.49	.70	5	17
9	.42	.55	9	6.5
10	.49	.38	14	14
11	.36	.61	4	1
12	.44	.60	7	3
13	.55	.52	12	16
14	.55	.48	13	15
15	.42	.66	3	9
16	.54	.34	18	10
17	.56	.57	11	6.5
18	.43	.81	1	2
Average	.50*	.58*		

* $p < .01$ on each occasion.
† Based on Z-transformed correlations.

ation (R1) and the second based upon the student's rating in the staff assessment of his improvement in clinical ability during his clerkship period (R2).

It can be seen that all correlations between the students and the resident are positive and that the average correlation between the students and the resident on both evaluations is significantly different from zero. While the main improvement in student-resident agreement as reflected by the average correlations on the first and second occasions is in the hypothesized direction, it failed to achieve statistical significance (C.R. = +.655, n.s.). A further analysis to investigate the relationship between the positive change in correlation between each student and the resident (shown by the R1 rankings) and the amount of time between the evaluation sessions produced a rank order correlation of +.35 (corrected for tied ranks, p. $<$ .20).

The rank order correlation between the judged improvement in the student's clinical skills (R2) and his improvement as reflected in the change in Q-sort correlation on each occasion (R1) was essentially zero ($r' = +.04$, corrected for tied ranks).

No significant differences were found in the Q-sort agreement of the students and the resident with regard to male versus female patients or among the four main diagnostic categories represented in the patient sample.

The final analysis performed on the data was an estimation of the degree of stereotypy present in the Q-sort descriptions of both the students and the resident. This was estimated by intercorrelating the resident's Q-sort description of the "typical psychiatric patient" with his 36 Q-sort descriptions of the particular psychiatric patients in this study. Similarly, the Q-sort description of the "typical psychiatric patient" done by each of the nine medical students was correlated with each of their Q-sort descriptions of their particular patients. The results of these intercorrelations are presented in Table 2.

This is a detailed report of a study designed to objectively assess the medical student's ability to perceive and describe the emotionally ill patient and to determine improvement in this aspect of the student's functioning as a result of training on a psychiatric service. The educational implications of the findings are discussed. Dr. Muniz is Assistant Professor of Psychiatry and Dr. Henrichs is Associate Professor of Psychiatry (Medical Psychology) at the University of Missouri School of Medicine.

TABLE 2

CORRELATIONS OF Q-SORT OF PATIENTS' SAMPLE WITH Q-SORT OF "TYPICAL PSYCHIATRIC PATIENT" FOR STUDENTS AND RESIDENT

Resident							*First Pt.*	*Second Pt.*
PT.	R	PT.	R	PT.	R	*Student*	R	R
1	.30	13	.56	25	.56	1	.32	.30
2	.09	14	.57	26	.74	3	.07	.07
3	.43	15	.29	27	.62	4	−.33	−.20
4	.65	16	.41	28	.49	8	.33	.64
5	.26	17	.17	29	.48	9	.20	.58
6	.62	18	.38	30	.69	10	−.10	−.52
7	.60	19	.73	31	.63	13	.70	.64
8	.22	20	.58	32	.46	14	.27	.31
9	.27	21	.61	33	.41	18	.13	.18
10	.56	22	.66	34	.73			
11	.52	23	.35	35	.46			
12	.67	24	.37	36	.82			
Average					.52			.22

After Z transformation, the average correlation for the resident was +.52, while that for the students was +.22. These correlations are significantly different (C.R. = 2.01, $p < .05$) and suggest a more significant role of stereotypy in the descriptions of patients by the resident.

Discussion

The present data clearly show that medical students can demonstrate significant agreement with a more experienced observer in their Q-sort descriptions of the clinical behavior and presenting complaints of a heterogeneous group of psychiatric patients. While a trend toward increasing congruence between the group of students and the criterion rater is in evidence as the length of time the students are assigned to the psychiatric clerkship increases, this change does not achieve statistical significance.

Many theoretical and statistical arguments have been proposed for findings ranging from significant to apparently negligible degrees of Q-sort agreement among observer-raters of the behavior of others.[1, 7, 8, 11] It has become obvious from the aggregate of studies of interpersonal perception that the observer-rater, the subject or object being rated and the methods used to achieve the rating are interacting factors. It seems unlikely that only one of these factors is solely accountable for a given set of results. It is, however, encouraging that the present findings show a higher level of congruence between observer-raters (students and resident) than the rather disconcertingly low correlation of +.26 reported by Miller[8] for clinician-clinician agreement on Q-sort ratings of emotionally disturbed children. One of the major differences between the two studies would seem to be the type of Q-sort items used to make the judgments. In the present study, the Q-sort items were complaints and problems of psychiatric patients stated in their own language and, hence, atheoretical and referable primarily to readily observable and understandable signs and symptoms. This could contribute to less ambiguity and fewer questions of relevancy for relatively unsophisticated raters, such as medical students, than would items, such as Miller employed, which were drawn from a "conceptual scheme encompassing dimensions of personality and interpersonal relationships." This phenotypic-genotypic dimension of item referent is an important one in the general area of research in clinical judgment, and, in the present study, may be contributing to the significant degree of congruence shown between the medical students and the resident.

It also would appear that changes in congruence between the students and the resident assessed via Q-sort agreement are not related to subjective staff judgments of the students' improvement in clinical skills in observing and interacting with psychiatric patients. It is obvious that different criteria are being employed in these two judgments. While one initially might hope for some degree of communality among them, the present finding of no significant relationship, at the very least, forces a consideration of the nature of the criteria which should be employed to assess interpersonal perception. Similarity based upon the use of the common data language of a Q-sort technique seems less prone to unrecognized judging errors, for example, the "halo effect," than does the subjective judgment so often used to assess a medical student's abilities in many areas.

It is not surprising to find indications of the operation of more pronounced stereotypy in patient descriptions by the resident. One should expect the more clinically sophisticated resident to have formed more definite general impressions of how typical psychiatric patients appear and to apply these impressions to his evaluations of particular patients. The present assessment of stereotypy by intercorrelation of a stereotyped description (the "typical psychiatric patient") with the Q-sort descriptions of particular patients is not an assessment of accuracy, nor does it allow for the sophisticated analysis of stereotype accuracy suggested by Cline.[1] However, the assessed difference in stereotypy in the descriptions of the resident and the students indicated more variability in the students' item placement and, hence, the probability of less agreement on item applicability between the students and resident on any given Q-sort item on a particular patient. The data in Table 2 indicate that the assessment of the resident's stereotypy is based upon more than twice the number of Q-sorts than were available for that of the students. It seems unlikely, however, that this fact alone accounts for the significant discrepancy between them. The students, as a group, show wide variability among their intercorrelations, whereas the resident shows consistently positive intercorrelations. These latter, however, do not appear to be of such magnitude as to indicate that the element of stereotypy would seriously delimit variability or responsivity to individual interpersonal cues.

From the main findings in the present study, one certainly can argue for both the utility and the potential educational value of a more objective approach to the assessment of interpersonal perception by medical students, when statistically and pragmatically significant agreement with a more experienced observer can be shown, than for the apparently invalidated, but commonly used, rather global, subjective staff judgments of the students' clinical skills. The utility is derived from the ease with which congruity can be measured if observer-raters use a common Q-sort data language. The educational potential would stem from the ability to utilize both the congruity and the disparity in interpersonal perception between observer-raters as a focus for training. Thus, the degree of congruity or disparity as represented in a correlation coefficient between observer-rater Q-sorts and the isolation of the basis of the disparity by identification of Q-sort items which show the greatest difference in placement among the observer-raters can both be used to assess and, ultimately, to attempt to modify the judgments based primarily on interpersonal perception. In the present study, both the less-than-perfect average correlation between the medical students and the resident and the difference in stereotypy between them indicate the degree of differences in their Q-sort item placements. These differences can be utilized in an educational setting as a basis for training, i.e., as cues to modify or enhance the medical student's perceptual awareness when he is involved in an interpersonal interaction with a patient. Marks and Seeman,[12] for example, utilize effectively "most descriptive" and "least descriptive" Q-sort items in their actuarial approach to personality description. The ease with which such categories of Q-sort items can be isolated also shows the value in continuing to utilize Q-sort methodology in the assessment of interpersonal perception.

SUMMARY

Eighteen medical students who were taking their clerkship training on a psychiatric inpatient service were asked to evaluate the first and last patient assigned to them using the Psychiatric Evaluation Index, an empirically derived Q-sort technique based upon the presenting problems of psychiatric patients. These Q-sort evaluations were correlated with similar Q-sort evaluations of a senior psychiatric resident who interviewed all 36 patients within 24 hours after the student interview and within 48 hours of admission. It was hypothesized that the students would show increasing congruence with the resident in their patient descriptions as a function of their length of experience in interacting with psychiatric patients on their clerkship.

Congruence with the resident on each of the Q-sort evaluations also was compared to an independent rating of the students' improvement in clinical psychiatric ability made by three psychiatric staff members who had close supervisory contact with them. Finally, a Q-sort description of a "typical psychiatric patient" was obtained from the resident and from a random sample of one half of the students to assess the role of stereotypy in their descriptions.

The results indicated that there was significant agreement between the students and the resident in their Q-sort descriptions. The students also showed increasing congruence with the resident over an average time between assessments of 26 days, but this change, which was in the hypothesized direction, failed to achieve statistical significance. Changes in the amount of congruence between the student and the resident from the first to the second patient evaluation were found to be unrelated to the independent assessment of the student's improvement or lack of improvement in his clinical ability.

While the sex and the diagnostic classification of the patient were not factors which influenced the degree of congruence between the medical student and the resident, it was noted that stereotypy was more prominent in the resident's Q-sort descriptions.

The educational implication of these findings, indicating the utility and potential academic value of objective assessments of improvement in clinical skills, was discussed.

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EDITOR'S NOTE: The April issue of MISSOURI MEDICINE was printed before the 1969 Annual Session of MSMA and the election of new Association officers. For that reason, the masthead page still carries the names of the 1968-1969 officers. New listings will be found in the May issue.

President's Message

It is with real pride, but equally with real concern, that one assumes the Presidency of an organization like the Missouri State Medical Association. The pride is the natural reaction to being selected by one's colleagues to follow in the footsteps of Dr. David N. Kerr and the long line of distinguished physicians who preceded him in the Presidency of this Association. The concern has roots in an inner doubt about one's personal ability to fill those footsteps and to deal adequately with the many problems which the Association and the medical profession face in this day and age.

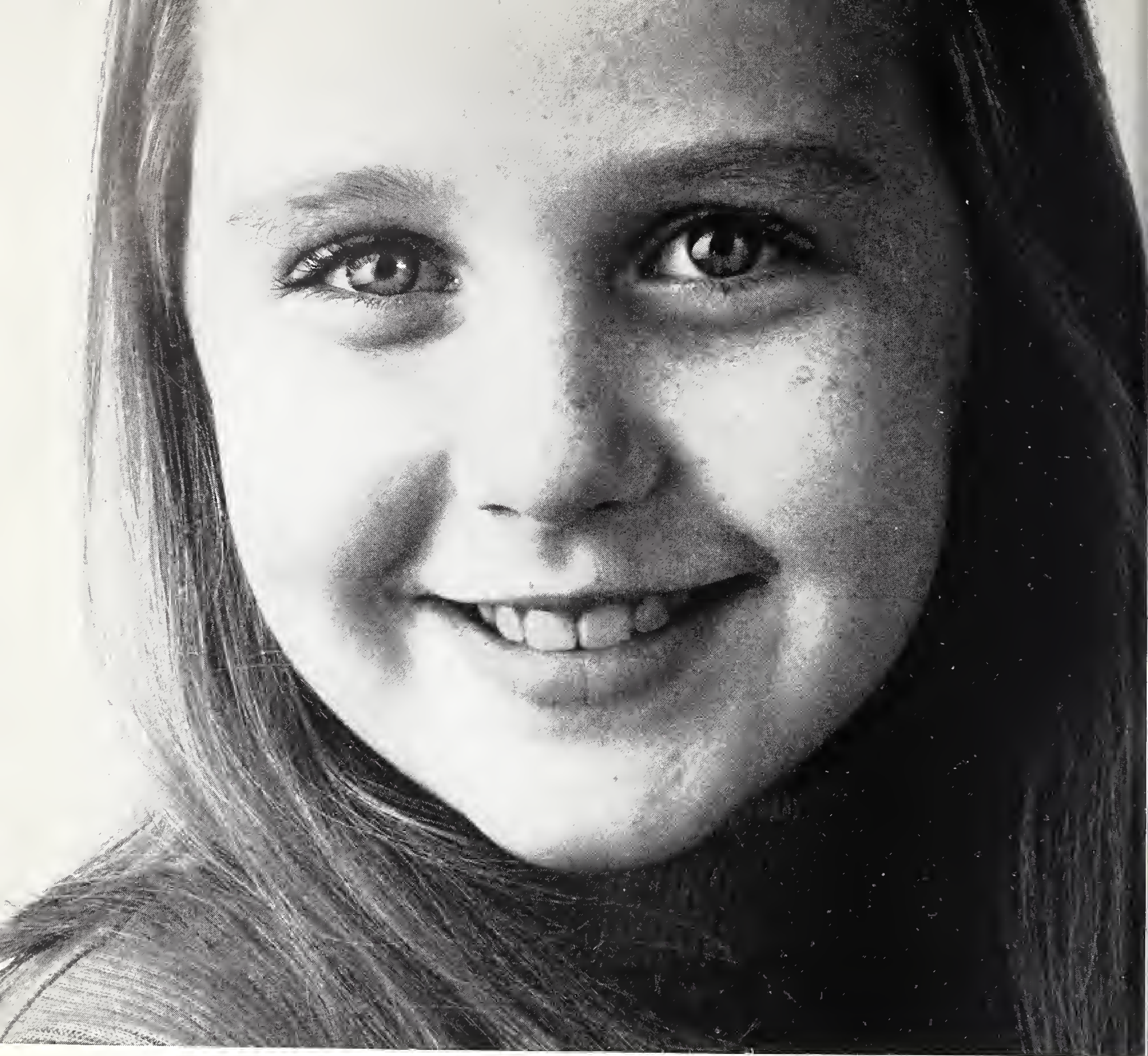
Doyle C. McCraw, M.D.

Being only human, I am most appreciative of the honor which has been given to me. I pledge to the other officers and members of this Association that I will carry out the responsibilities of office to the best of my abilities.

The Missouri State Medical Association and all of medicine are caught up in an era of rapid transition, wherein many of the old "truths" and long-accepted "standards" are being questioned or challenged. While society is demanding instant solutions to all of its problems, the medical profession and its scientific allies are beset by a critical manpower shortage. The limited pool of physicians, nurses, technicians and other ancillary workers are so busy handling the day-to-day demands for medical and health care that they have little time to contemplate new programs and systems. And yet, we must find the time. Otherwise, the new programs will be developed without us and, possibly, in forms which will not be scientifically sound or professionally palatable.

If this analysis is correct (and I sincerely believe that it is), then it is more essential than ever before that medicine present a united front. Those involved in political science are well aware of the validity of the "divide and conquer" concept. It seems to me that in recent years medicine voluntarily has been dividing and fragmenting itself without much assistance from the outside. As professionals, it is time for us to reverse this trend and to put aside petty jealousies, geographic differences, specialty prides and all of the other divisive factors which weaken the profession and make it vulnerable to outside attack. Despite our differences, we are first and foremost physicians, and the principal objective of the physician "is to render service to humanity with full respect for the dignity of man."

I urge members of this Association to join me in rededicating ourselves to this objective. "Service to humanity" is the common ground upon which all physicians can stand. "Service to humanity" is the common principle which can . . . and must . . . bring us to professional unity.



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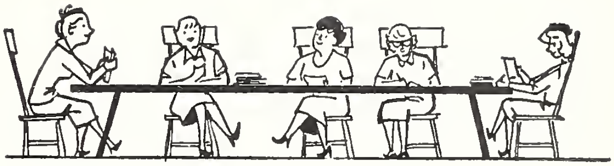
Woman's Auxiliary



This is the beginning of a new year for the Woman's Auxiliary to the Missouri State Medical Association. This means new leadership, but the links of the Auxiliary continue in an unbroken chain. New thoughts and ideas are added, but all the proven concepts continue.

Mrs. Lillian Butler of St. Joseph, Immediate Past-President, has been a beacon for us to follow this year. Her sincerity and depth of conviction, her loyalty and devotion to the Auxiliary are attributes that set her apart as an outstanding President of whom Missouri can be justly proud.

Mrs. James A. Reid, President

This year, the Auxiliary's theme will be "Opportunity to Serve." Auxiliary members in your county unit or members-at-large have so many areas in which to be of service—Community Service, International Health, Mental Health, Rural Health and Health Careers, to mention only a few. This year will bring the inception of two new chairmanships, "Medicine and Religion" and "Children and Youth." The second chairmanship has been stressed at the national level. Much information is available to make this a challenging field in which to work. I am asking each of you to listen to our youth. The radicals are in the limelight—we know what they want. The other 95% are studying, searching, yearning and building a better today and tomorrow.

Working with me this year is a remarkable slate of officers and committee chairmen. Each one is efficient and capable. Each one will bring some of her ingenuity to her particular field. The shining star of every Auxiliary performance is the individual *Doctor's Wife*. The county auxiliary is "where the action is."

Mrs. William Walker, President-Elect; Mrs. Thomas Thale, First Vice-President; and I have planned the Spring Workshops with the following schedule:

April 8	Districts 1 and 7	Cameron	Tierre Inn
April 9	Districts 2, 5 and 6	Boonville	Hotel Frederick
April 11	Districts 3 and 4	St. Louis	Holiday Inn South
April 14	District 10	Poplar Bluff	Holiday Inn
April 16	Districts 8 and 9	Joplin	Holiday Inn

Meeting time for each workshop will be from 10 AM to 2:30 PM.

These workshops are for state and county officers, chairmen and members; therefore, this includes all the Auxiliary members of the state. It is our hope that the women will attend these learning sessions. These meetings will be informal with an exchange of ideas. This is a time of learning to know *Doctors' Wives* all over the state of Missouri.

EDITORIALS

DOES YOUR REPRESENTATIVE KNOW YOU?

Pages 251-256 of this issue of Missouri Medicine are devoted to a legislative directory, including maps, listing the names and addresses of all Missouri State Senators and Representatives and the Missouri Delegation to Congress.

Every member of the Missouri State Medical Association should take the short time needed to check over these lists and learn the names and addresses of his own State Representative, State Senator, Congressman and our two United States Senators.

Never has there been as much health-oriented legislation in Jefferson City and in Washington as there is this year. And much of this legislation directly affects physicians and the well-being of their patients in one way or another.

It is the duty of every physician to make certain that all health legislation which wins final approval is in the best interest of the public.

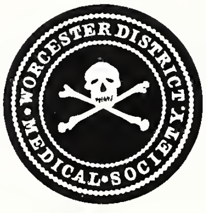
Direct, personal contact with your representatives in Jefferson City and Washington is most important. These elected representatives are interested in your opinion on health legislation and other matters, too.

Your expert advice concerning health legislation could help guide our lawmakers toward voting in a manner which is in the best interest of health care in Missouri and the nation.

Check the rosters and then become personally acquainted with your own representatives and senators. It is in the best interest of patients that physicians become involved in the legislative process.

BOB CARROLL
MSMA Executive Assistant

THE TROUBLE WITH SMOKING IS STARTING



The Seal of the Worcester District Medical Society circa 1800.

During the past month, book matches have been distributed by this publication throughout the community, state and nation carrying the message of the title of this editorial, "The Trouble With Smoking Is Starting." The original morbid skull and crossbone seal of the Worcester District Medical Society prominently appears on the match book cover. It serves as a crisp reminder of the indisputable hazards from smoking and is especially geared for the teenager. The glamorous image of the virile young man and sophisticated woman is what seduces the teenager into smoking. After he has begun, the adhesive force of tobacco dependence gains increasing strength. The trouble with smoking is starting.

* * *

The medical profession is the most effective leader in the anti-tobacco campaign. However, at times emphasis on the goal has obscured complete insight into the problem. The intelligent adult who smokes appreciates the health hazards. He and his family are beset by great feelings of guilt and frustration upon viewing the current anti-smoking television commercials. Furthermore, it is most inconsiderate for hospitals to remove tobacco dispensing machines. Visitors to a hospital are not touring a museum, but rather are commonly involved in an emotional strain associated with the illness of a loved one. If the visitor happens to be a smoker, then tobacco should be available if desired. It is hardly the time or setting to give up the habit. It is suggested that all hospitals have posters placed in their tobacco dispensing machines which read like the one composed by Doctor Robert Switzer of the Menninger Clinic: "Members of our staff recognize that cigarette smoking is an extreme health hazard. The use of this machine is not recommended. It is placed here only temporarily until such time that public opinion, based on understanding and acceptance of available facts about the harm done by habitual use of cigarettes, demands removal."

In conclusion, the trouble with smoking is starting. We would be most happy to send our match book to anyone upon request.

Worcester Medical News
January, 1969

COULD IT BE THIS SIMPLE?

I have two sons who attend a fine midwestern college. The teacher-student ratio is excellent; there is much personal contact between students, and the fine faculty and the other ingredients which I believe necessary for a superior education are present. For the most part, the student body represents homes like our own.

So, imagine my surprise when I was talking to one of the boys during Christmas vacation and he came up with the remark, "Most of my friends at school hate their parents."

"Oh," I said, "hate is a big word." And then, after a thoughtful pause, "Do you hate your parents?"

Thankfully, there was no pause in his reply. "No, I don't. I often disagree with you because we are stubborn people. But there is nothing deeper than disagreement."

"Evidently then, in your circle, I am one of the Lord's anointed," I said, "Why am I spared the hating? There must be a reason."

This time, the pause was his. Very deliberately, he replied, "I have no reason to hate you, but I really believe my friends have considerable reason for their feelings."

"What are they?" I asked.

"Principally," he replied, "I think they are from families that were never really interested in them. The parents were busy, intelligent people who have done well. They were always in a separate world from their children! Mostly," he continued, "I believe my friends have been supplied with things, most of them with more than I have had, but never with much authority or love. And the families hardly ever did anything together."

Such talk of authority and love from this boy rang strangely on my ears. Testing him, I said, "Could those things be so important? From your genetics courses, you know that intelligent people generally beget intelligent people. If, to the blessings of intelligence you add good living surroundings and educational exposure to stimulating teachers, how important do you consider the authority of parents and this palsy-walsy business? Can't a young person with superior mental endowment and a good education make it on his own?"

Quite carefully, he replied, "Yes, he might, but he would be deprived of a lot. I have been away from home long enough now to understand that our fishing and hunting and vacation trips were more than vacations. Maybe I learned most that I was part of a family that cared about me and expected something of me."

This was quite a statement. My boy had grown up, at least in this mature perspective.

I found myself again thinking that much of what we disapprove in the generation following us could only be of our own making. In these days of affluence, certainly we physicians have been almost frantically occupied with our business affairs. But, being so, have we created an alien generation by supplying dollars instead of time, giving automobiles instead of love and substituting things for ourselves. Perhaps, of the two of us, these young people, who can so perplex parents, might well have thought it all out the better.

This is certainly not an original thought, but couldn't it explain some things?

WILFRED E. WOOLDRIDGE, M.D.
Springfield

WHAT SHOULD OUR REACTION BE?

Time Magazine's recent exposé of "The Plight of the U. S. Patient" is hardly pleasant reading for anybody. Choked into a relatively few pages, the entire article reads like a complete indictment for Bad Medicine, Inc. It leaves one with the impression, you'd better stay well, or else; and puts enough innuendo into its facts to sow seeds of resentment everywhere—on both the "defenseless, unprotected" patient as well as on the medical personnel who administer "less than desirable" health services to 75% of the population.

Unfavorable publicity using unsubstantiated supposition, half-truths and even not-so-subtle direct attacks on present-day medicine has been boiling up for a number of years. And now, in a period of general discontent, it has a rather shocking acceptance by the public.

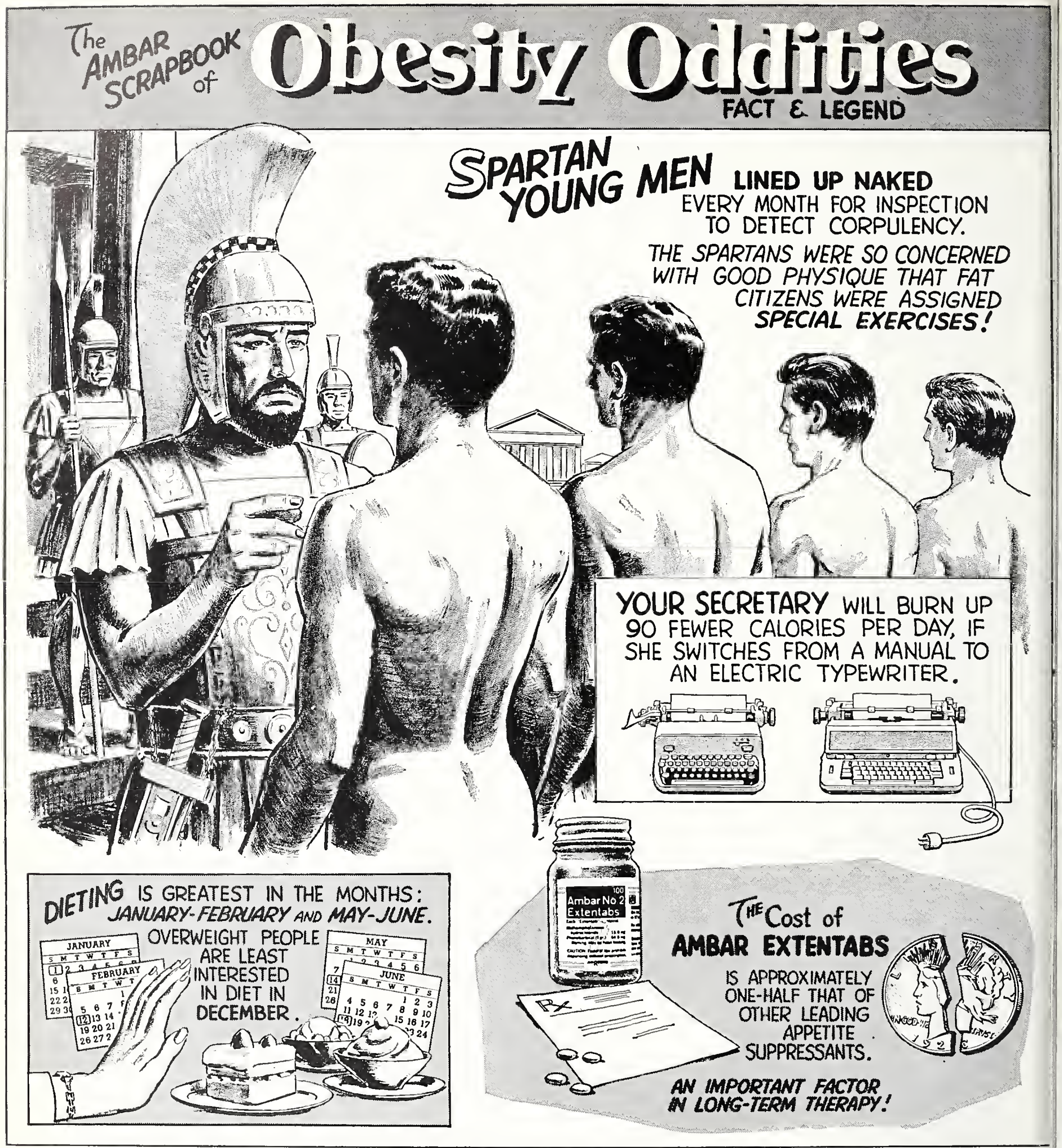
What should our reaction be? Nothing at all.

It would be far more purposeful for the profession to act rather than react. Paul Harvey, columnist and broadcaster, is quoted as saying, "Someone representing medical interests must answer headline indictments (of physicians) with equal boldness." But even this would constitute a reaction and, besides, extolling one's own virtues publicly does not lend itself to ready public acceptance anyway.

Where can we get our most effective counter-publicity?

From our fairly and properly treated patients, of course.

E. W. JOHNSON, M.D.
Cape County Journal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FEBRUARY
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County Society News

FIRST DISTRICT

COUNCILOR
JOSEPH L. FISHER, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

The 17th Annual Heart Program of the Buchanan County Medical Society was held on February 5 following a dinner at the Moila Club in St. Joseph.

The program was sponsored by the St. Joseph Heart Council. William H. Ames, M.D., secretary of the Missouri Heart Association introduced the guest speaker, Richard H. Martin, M.D., associate professor of medicine and physiology at the University of Missouri-Columbia School of Medicine. Dr. Martin presented a paper entitled "Whose Fault Is Heart Failure?"

Fifty-four physicians attended the meeting. Dr. John L. Mothershead, President of the Society, presided at the meeting and business session.

LAWRENCE H. PIFER, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

Dr. David N. Kerr, President of the Missouri State Medical Association, was the principal speaker at the monthly meeting of the Chariton-Macon-Monroe-Randolph County Medical Society on February 13 at Woodland Hospital. His topic of discussion was "Your Missouri State Medical Association." He discussed various legislation with medical aspects now before the Missouri House of Representatives and Senate and other business of the State Association.

Mr. William Hibler of Brunswick, Chariton County State Representative, and Mr. Dorman Osbourne, Monroe County State Representative, were present as invited guests and took an active part in the discussion period. Mr. Ray McIntyre and Mr. Bob Carroll of the Missouri State Medical Association also were present.

Dr. Robert Hasson, President of the Society, gave a report of his attendance at the County Medical Society Officer's Conference in Jefferson City in January.

Members present were Drs. F. L. Harms and D. D. Stuart, Chariton County; Josephine Baker, A. P. Rowlette, J. Will Fleming, W D. Chute, C. C. Cohrs, L. E. Huber, R. V. Tompson and Robert Hasson, Randolph County; and F. A. Barnett, Monroe County. Dr. L. LaChance of Centralia was a guest.

CLARENCE C. COHRS, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR
ROLLA B. WRAY, M.D., NEVADA

LAFAYETTE-RAY COUNTY MEDICAL SOCIETY

The Lafayette-Ray County Medical Society met on February 11 at Maib's Cafe in Lexington with 24 members and guests present. Guests included Mr. Charles Sloan, Ray County Prosecuting Attorney; Mr. James Lauderdale, Lafayette County Prosecuting Attorney and Mr. Richard Holt, a third year medical student at the University of Missouri-Columbia School of Medicine, who is taking his preceptorship with Dr. Jordan Kelling in Waverly.

Following the social hour and dinner, the program was turned over to the visiting guest speakers, Attorneys Sloan and Lauderdale, to discuss the progress being made in their respective counties in obtaining adequate ambulance service beginning on March 1, 1969.

Mr. Lauderdale spoke first concerning the efforts being made in Lafayette County. He stated that, according to his interpretation of the law,

"It's your boss, Mr. Blenth! He wants to know if you got the order. . . ."

it is neither the duty nor the responsibility of the county to provide ambulance service. He said that approximately $250,000 would be needed to provide ambulance service and this amount is not available and will not be available from county funds unless the people in the county are interested enough to vote a tax increase or a bond issue. He stated that the county court has appointed a steering committee to investigate possibilities and suggest plans to the communities for carrying out this needed service.

Mr. Sloan discussed the efforts being made to provide the needed ambulance service in Ray County. He said that a Missouri law was passed in 1967 which states that any county or city may provide ambulance service, but the law does not provide a means for taxing or providing the money needed for this service and does not specifically appoint responsibility for such service to any county, city, community or organization. He said that this gave the funeral directors an opportunity to discontinue providing ambulance service. He added that apparently this is a statewide movement and has caused considerable problems in various counties throughout the state.

Mr. Sloan said that the funeral directors, in stating their position and desire to get out of the business, then "dumped" the problem into the laps of the county courts and, apparently, the county courts do not want this responsibility. He stated that in Ray County, however, the county court has made an effort to investigate the possibility of providing this service. The Ray County Court and various representatives of the organizations in the county met with representatives from the University of Missouri and Boone County on several occasions in an attempt to pattern an ambulance service after that now being provided in Boone County.

Mr. Sloan said that the Boone County ambulance service is based at the Boone County Hospital with one ambulance and one back-up vehicle, with a seven-man crew to operate a 24-hours a day, seven days a week ambulance service at a cost of approximately $35,000 to $40,000 annually. Twenty-four thousand and six hundred dollars of the cost would be wages. It was estimated that service fees and charges would bring in approximately $27,000 to $30,000 per year with a net cost of approximately $10,000 a year to the taxpayers. He stated that, at the present time, the charges for service are $15.00 for routine calls and $20.00 for emergency calls plus mileage of approximately 25-cents per mile. In Boone County, the volume averages approximately 125 calls per month. Mr. Sloan said that personnel from the University of Missouri would train the ambulance drivers if this program were adopted in Ray County. He also said that the funeral directors in Ray County have agreed to continue service until this program can be implemented, providing that there is a continued effort to get the program under way.

A discussion and question and answer session followed this presentation.

Wayne Boydston, M.D., *Secretary*

West Central Missouri Medical Society

The February meeting of the West Central Missouri Medical Society was held at Irene's Harvest House in Harrisonville on February 13 and followed the usual social hour and dinner.

This was a special meeting for the Society. The speaker was Dr. Charles Wheeler of Kansas City, who presented his views on the pending legislation concerning the medical examiner system in Missouri. Because of the importance of this presentation, the Society invited the legislators who represent the various counties to be guests at the meeting.

We were pleased to have as our guests Senator and Mrs. Bill Cason, Representative and Mrs. Frank Mickelson, Representative and Mrs. Guss Salley and Representative E. A. Brewer. Mr. Royal Cooper from the MSMA headquarters also was present. The attorneys in the counties of this Society were invited to attend this meeting and attorneys from three of the five counties were present. Total attendance was 25.

Preceding the scientific program, Dr. Guss Salley, Representative from the 116th District, entertained the group with his rope trick. This bit of levity was greatly appreciated by the audience.

Following the scientific portion of the meeting, President William Haynie called the business meeting to order. Minutes of the previous meeting were read and approved. Correspondence received by the Secretary was discussed. Mr. Royal Cooper commented briefly on some of the legislative matters before the Missouri General Assembly.

The Secretary-Treasurer reported that the next meeting of the Society will be held at the Country Club in Nevada on March 13, 1969. The program is to be presented by a group from the Missouri State Sanatorium in Mount Vernon. On motion duly made and seconded, it was voted to invite the inhalation therapists from the hospitals in the Society to attend this meeting.

The meeting was adjourned.

ROY W. PEARSE, JR., M.D., *Secretary*

NINTH DISTRICT

COUNCILOR
E. A. STRICKER, M.D., ST. JAMES

SOUTH CENTRAL COUNTIES MEDICAL SOCIETY

The South Central Counties Medical Society met for dinner at the Village Inn in West Plains on February 26. Host for the evening was Dr. D. E. Tiffany of Mountain View. Following the dinner, Dr. James K. Terry of Springfield presented a discussion on "Hematuria, Its Significance and Treatment." An interesting discussion and question session was held.

James K. Cordonnier, M.D., of Springfield was a guest of the Society at the meeting.

A short business meeting followed the scientific session. It was decided to delete the March meeting since it conflicts with the Annual Session of the Missouri State Medical Association in St. Louis.

The Society voted to contribute $100 to the Missouri State Medical Foundation fund.

JACK N. WILES, M.D., *Secretary*

TENTH DISTRICT

COUNCILOR
W. D. ENGLISH, M.D., CARDWELL

MINERAL AREA COUNTY MEDICAL SOCIETY

The Mineral Area Medical Society met in the Hoctor Building at the Farmington State Hospital on February 27. The scientific portion of the program consisted of a discussion on "The Handling of the Abnormal Pap Smear" by Patrick C. Reddin, M.D., associate professor of obstetrics and gynecology at the University of Missouri School of Medicine.

Mr. Royal O. Cooper, field secretary of the Missouri State Medical Association, then discussed with the members the status of pertinent legislation concerning the practice of medicine.

Members of the Medical Society Auxiliary were present for these portions of the program.

Next, the business meeting was conducted by Tom R. Burcham, M.D., President. The minutes of the January meeting were read and approved.

Delegates and Alternate Delegates to the MSMA Annual Session were reviewed. They are Retus W. Osborn, Delegate and C. W. Chastain, Alternate, St. Francois County; M. A. Grossman, Delegate, and R. A. Huckstep, Alternate, Madison County; Kirby Turner, Delegate, and George Cresswell, Alternate, Washington County; Robert Dettmer, Delegate, and Marvin Menne, Alternate, Iron County; and Ben Bull, Delegate, and T. R. Burcham, Alternate, Reynolds County.

In view of the importance of attendance at the MSMA Annual Meeting, the Society voted to pay for the Annual Doctor's Day Dinner only if it will be held in April instead of on the usual date in March, which conflicts with the annual meeting dates.

Members present at the meeting were Drs. T. R. Burcham, C. H. Appleberry, C. E. Carleton, R. A. Huckstep, C. W. Chastain, Kirby Turner, Norma Farmer, Edward Mardini, Andrew Fraser, Jack Hunt, Emmett Hoctor and C. H. Lau.

After the meeting was adjourned, members and guests enjoyed a dessert served by the Ladies of the Auxiliary.

C. W. CHASTAIN, M.D., *Secretary*

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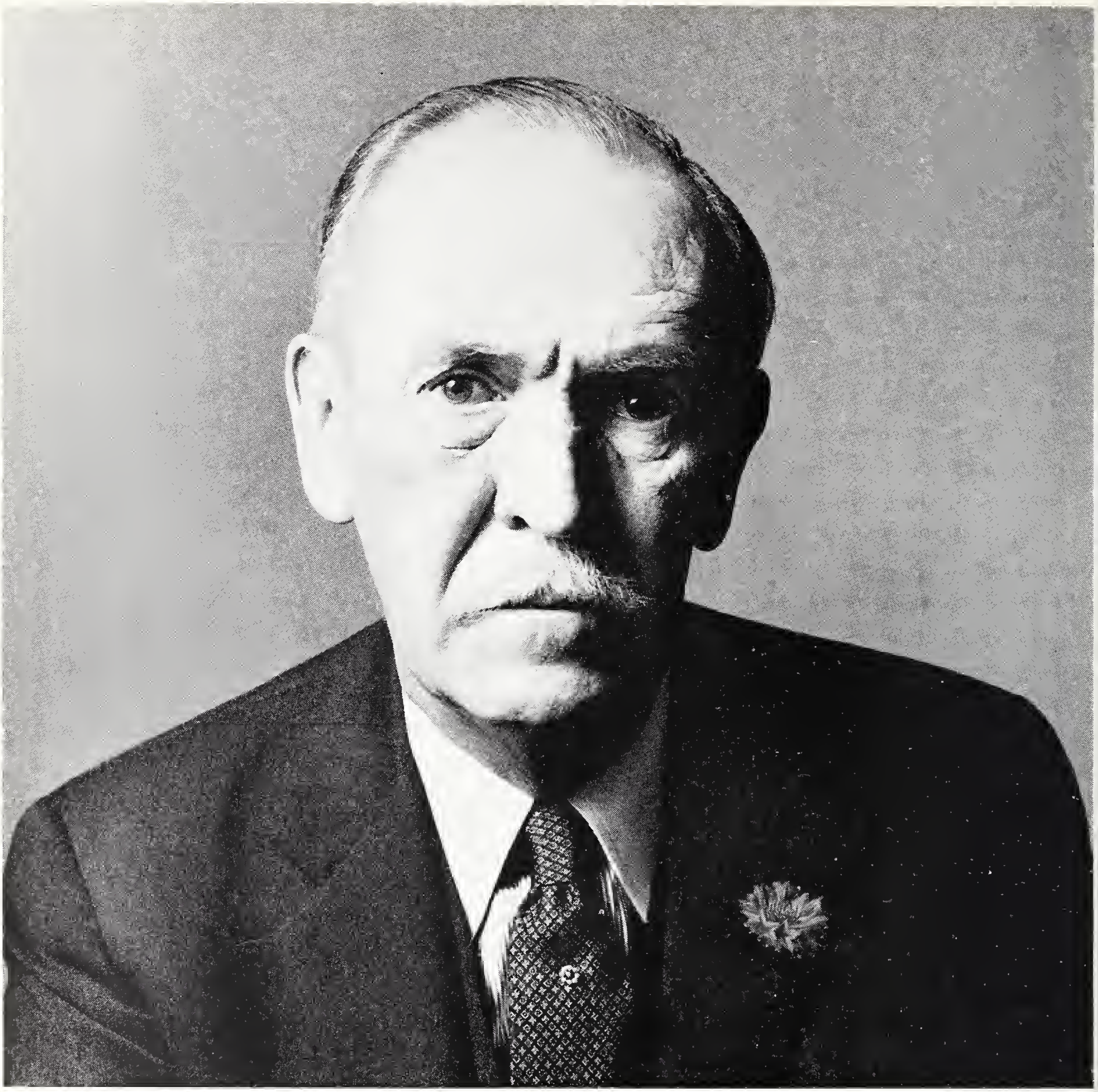

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New Members

Raymond A. Amoury, M.D., 1710 Independence Ave., Kansas City, has become a member of Jackson County Medical Society. Dr. Amoury is a native of Staten Island, N. Y., received his preliminary education at Wagner College and his M.D. degree at the University of New York in 1955. He specializes in surgery.

Julian Rodriquez Casas, M.D., 6219 Berthold, St. Louis, has become a member of St. Louis County Medical Society. Dr. Casas is a native of Camaguey, Cuba, received his preliminary education at Progressive College and his M.D. degree at Havana University in 1959. He specializes in pediatrics.

Richard L. Dreher, M.D., 1710 Independence Ave., Kansas City, has become a member of Jackson County Medical Society. Dr. Dreher is a native of Luray, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1950. He specializes in pediatrics.

Mangesh R. Gaitonde, M.D., 4643 Wyandotte, Kansas City, has become a member of Jackson County Medical Society. Dr. Gaitonde is a native of Bombay, India, received his preliminary education at Wilson College and his M.D. degree at Bombay University Medical College in 1951. He specializes in psychiatry.

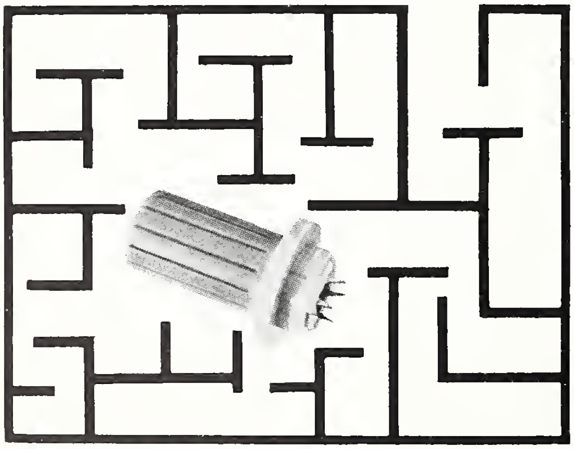
Richard A. Guthrie, M.D., 807 Stadium Dr., Columbia, has become a member of Boone County Medical Society. Dr. Guthrie is a native of Pleasant Hill, Ill., received his preliminary education at Graceland College and the University of Missouri and his M.D. degree at the University of Missouri in 1955. He specializes in pediatrics.

Edgar W. Johnson, Jr., M.D., 6700 Troost, Kansas City, has become a member of Jackson County Medical Society. Dr. Johnson is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1942. He specializes in internal medicine.

Nicola Y. Katf, M.D., 600 E. 22nd St., Kansas City, has become a member of Jackson County Medical Society. Dr. Katf is a native of Cairo, Egypt, received his preliminary education at College Patriarcal and his M.D. degree at Cairo University in 1957. He specializes in psychiatry.

John N. Lukens, Jr., M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Lukens is a native of Portsmouth, Ohio, received his preliminary education at Princeton University and his M.D. degree at Harvard University in 1958. He specializes in pediatrics and hematology.

John C. Soucy, M.D., 2850 W. Clay St., St. Charles, has become a member of Lincoln-St. Charles County Medical Society. Dr. Soucy is a native of East St. Louis, Ill., received his preliminary education at the University of Notre Dame and his M.D. degree at St. Louis University in 1961. He specializes in internal medicine.



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In Memoriam

Kelley, Ralph R., M.D., Savannah, a graduate of Central Medical College, 1903; member of Andrew County Medical Society; aged 89; died Jan. 15, 1969.

McCarthy, William F., M.D., Kansas City, a graduate of Creighton Medical College, 1924; member of Jackson County Medical Society; aged 69; died Jan. 17, 1969.

Liston, Odus, M.D., Oak Grove, a graduate of Kansas University, 1915; member of Lafayette-Ray County Medical Society; aged 84; died Jan. 20, 1969.

Kibbe, Edgar A., M.D., California, a graduate of Harvard Medical School, 1922; member of Moniteau County Medical Society; aged 75; died Jan. 28, 1969.

Dabbs, LeRoy, M.D., St. Louis, a graduate of Meharry Medical School, 1917; member of St. Louis Medical Society; aged 81; died Jan. 28, 1969.

Aisenstadt, E. Albert, M.D., Kansas City, a graduate of University of Illinois, 1912; member of Jackson County Medical Society; aged 79; died Feb. 1, 1969.

Kessler, Joseph John, M.D., St. Louis, a graduate of St. Louis University, 1931; member of St. Louis County Medical Society; aged 65; died Feb. 18, 1969.

Dr. F. G. Thompson, Sr. Lectureship on May 8

The Thompson, Brumm & Knepper Clinic of St. Joseph announces the 20th annual Dr. F. G. Thompson, Sr. Lectureship to be given by Dr. Richard H. Young, Dean of the Medical School of Northwestern University, Director of the Medical Center and Chairman of the National Board of Medical Examiners.

The lecture is entitled "Examination and Licensure to Practice Medicine." It will be given at the Clinic Building, 902 Edmond Street, at 8:15 PM on May 8, 1969. Members of the profession are invited.

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AMA 1969 Convention Goes to New York City

New York City is the site of the American Medical Association's 118th Annual Convention on July 13-17

The nation's largest city has been host to two AMA annual conventions in this decade—in 1961 and 1965—and attendance at each exceeded 60,000.

A total registration of 60,000 is predicted for the 1969 convention, including some 22,500 physicians. Medical students, nurses and other members of allied medical professions, industrial exhibitors and guests make up the rest of the registrants.

Four general scientific sessions are planned. They are Human Sexuality, Physical Fitness and Aging, Impact of Medical Education on Patient Care and Chronic Pulmonary Insufficiency and Air Pollution Problems.

Each of 22 scientific sections also will present a program. The 23rd section on special topics plans six sessions, as follows:

Drug Utilization (in cooperation with AMA's Council on Drugs)

Mental Health Dynamics in the Pre-School Child (in cooperation with AMA's Council on Mental Health)

Disaster Planning for Aviation Accidents (in cooperation with AMA's Committee on Disaster Medical Care)

Neurological Surgery

Nuclear Medicine

Plastic and Maxillofacial Surgery

An abundance of valuable information will be presented in a variety of interesting ways to those attending the meeting.

Some information will be available to visitors in the comfort of their convention hotels or motels. This will be through the special televising of convention news, interviews, panels and scientific presentations.

Such TV programming, a highlight of AMA Annual and Clinical conventions in recent years, will be available from 5 PM to midnight Sunday, July 13; from 7 AM to 9 AM and from 5 PM to midnight Monday through Wednesday, July 14 through 16; and from 7 AM to 9 AM Thursday, July 17.

Much of the scientific activity of the July 13 through 17 Annual Convention will be in the Coliseum and New York Hilton Hotel. The House of Delegates will meet at the Americana Hotel.

In addition to papers and lectures which will be presented in the Coliseum and New York Hilton, there will be exhibits, color closed circuit television and medical motion pictures.

Some 250 to 300 scientific exhibits are expected at the Coliseum, including special ones on arthritis, pulmonary function, fresh tissue pathology, fractures, resuscitation and laboratory medicine.

Industrial exhibits also will be on view at the Coliseum.

From rooms set aside at the Coliseum, viewers will be able to see closed circuit scientific presentations televised in color from Cornell University Medical Center.

The Coliseum also will be the site of medical film showings, including the premiere showing of some new films.

The May 26 issue of *The Journal of the American Medical Association* will list the entire scientific program.

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The Council Reports

(Continued from page 262)

He said that the AMA is undergoing reorganization at this time, with the Washington Office almost completely reorganized and functioning under the AMA Division of Public Affairs. Mr. Foristel serves in 12 states, including Wisconsin, a new one for him, and Missouri.

He stated that the Washington legislative program for the year to date includes a review of tax exempt organizations. A hearing is scheduled for February 18, and the AMA had asked to appear and present a statement regarding their tax exempt status. He also said plans include a possible review of Medicare by the Ways and Means Committee. He mentioned possible legislation to be promoted setting up tax credit for the purchase of health insurance. He said that some changes in the membership of the House Ways and Means Committee and the Senate Finance Committee have occurred and such may have a bearing on Health Legislation this year.

Financial Report on MSMF

Mr. Fox presented a brief report of the Financial standing of the Missouri State Medical Foundation as of Dec. 30, 1968. He stated that the balance on hand Jan. 1, 1968 amounted to $41,986.60. Income during the year including the assessment, contributions, interest, and principal repayments amounted to $39,728.38, making a total of $81,714.98. Loans during the year amounted to $43,964.98. Total loans to date $282,465.10. He also mentioned that the Financial Statement of the MSMF would be included in the March issue of Missouri Medicine and, also, in the Delegate's Handbook for the Annual Session. It also was noted that $2,106.50 was received in voluntary contributions from individual physicians, drug stores, county medical societies, etc. No solicitation letter was sent out this year, but a letter was published in Missouri Medicine requesting donations. After discussion, on motion, the report of the Missouri State Medical Foundation was approved.

Interspecialty Medicine Committee

Dr. Kerr presented the report of the Committee on Interspecialty Medicine which met in Jefferson City on January 19. He stated that the only function of the Committee to date has been in serving as a part of the Medical Economics Contract Committee concerning Medicaid.

Attention was called to the fact that the Long Range Planning Committee had pointed up the need for activating the Interspecialty Medicine Committee for a more active role in Association affairs. Copies of a proposed restructure of the present MSMA committee set-up were distributed to the committee members with a request that the members discuss these proposed changes with their specialty groups and be prepared at the next committee meeting to suggest whether or not certain committees might well be combined or eliminated. Dr. Kerr also requested that Dr. Charles Gulick of St. Louis assume chairmanship of the Interspecialty Medicine Committee. Dr. Gulick called for any additional matters for discussion. Points brought forth for discussion included (1) Specialty groups should suggest members for the

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Interspecialty Committee including one or more alternates, (2) More specialty groups should meet during the MSMA annual meeting and (3) The committee should meet again, if possible, before the meeting of the MSMA Council in March and make recommendations to the Council.

After discussion, on motion, duly seconded, the report of the Interspecialty Committee was approved.

Councilor District Reports

Dr. Fisher reported that there is a lack of information for lay consumption from the AMA in the news media and, if this could be changed, it might be helpful in improving the image of the physician, as well as shaping public opinion.

Dr. Gunn reported that he had received a complaint from a St. Louis Urologist concerning Medicaid not allowing the usual, reasonable and customary fees. It was suggested that such complaints be made to the Urological Society Review Committee for the Division of Welfare which was established to work with the Division of Welfare on such matters.

Dr. Gunn also reported on an unusual practice by a pharmaceutical company which had come to his attention. Discussion followed concerning what action should be taken in this regard. It was suggested that the matter be deferred until Sunday so that this could be discussed with legal counsel.

Dr. Mayer reported that St. Louis County held its annual installation of officers on Saturday night, January 25, and among guests attending were Dr. and Mrs. Kerr and Mr. and Mrs. McIntyre. He also stated that Dr. Rouse of the AMA will address their next Council meeting.

Dr. Wray reported on a joint meeting of county medical societies he attended in Marshall. He said special entertainment was provided for the ladies, which resulted in a better turnout of the members and their wives than usual.

Dr. Stricker reported attending a fine meeting of the Mid-Missouri Medical Society in conjunction with personnel from Fort Leonard Wood. He also reported that two new physicians had located in Rolla in the last six months, one an M.D. and the other an Osteopath.

AMA House of Delegates Action Regarding Osteopathy

Dr. Kerr reported that since the action of the AMA House of Delegates in December regarding internships and residencies for osteopathic physicians in AMA approved hospitals, he had been contacted by Homer Phillips Hospital in St. Louis regarding an application they had received from an osteopath for internship. Dr. Kerr stated that the Council on Medical Education of the AMA was now contacting hospitals over the United States concerning this matter. He also stated that some applications from osteopathic physicians for medical society membership had been received. To effect such membership, the MSMA bylaws would have to be changed to include osteopathic physicians. Following this, county societies, by similar change of their bylaws, could then consider osteopathic physicians for membership.

It was pointed out that the AMA House of Delegates in December took action suggesting that state and county medical societies consider steps to open up membership to qualified osteopathic physicians. After considerable discussion, on motion, duly seconded, it was agreed that the Council recommend to the House of Delegates that the Bylaws of the Missouri State Medical Association be amended to permit active membership in the Association for duly Missouri licensed physicians (M.D. and D.O.) with qualifications for active membership determined by the local medical societies as at present, and that the Council refer this matter to the Committee on Constitution and Bylaws for the proper bylaw changes. These suggested bylaw changes are to be presented to the Council at its next meeting for Council recommendation to the House of Delegates in March, 1969.

Legislative Report

Dr. Matthews reported the Legislative Matters Committee met on Friday evening, January 31, with representatives of the Osteopathic Association and the State Board of Healing Arts to discuss various legislative bills of interest to medicine in the 75th Missouri General Assembly.

He stated that a uniform anatomical gift act will be introduced shortly and the Committee recommends support of the bill when it is introduced.

S.B. 146, H.B. 314—Both call for a Medical Examiner System to replace the present coroner system. The Committee recommends support of this legislation.

H.B. 40—Battered Child Bill. This bill makes it mandatory for physicians to report suspected cases of child abuse, but such reports are to be made to county welfare offices. The Committee feels this bill should be broadened so that nurses, school teachers and others who come in contact with children also would have the responsibility of reporting child abuse. With a broader base, the Committee recommends support.

S.B. 69—Allows podiatrists to use narcotics in the treatment of foot ailments. The Committee recommends no position on this bill.

H.B. 39—Provides for registration of physical therapists under the Board of Healing Arts. With two or three amendments to be offered and, if adopted, the Committee recommends support.

S.B. 77—Provides for registration of Sanitarians within the Division of Health. The Committee recommends no position on this bill.

H.B. 84—Would require that certain health insurance firms not discriminate against chiropractic, podiatrist and optometrist services. Insurance people are studying this bill.

H.B. 142—Provides for registration of psychologists under their own board without adequate definition of their services. It is recommended that if registered, they come under the Board of Healing Arts, and for any patient care, they work under the direction of a physician.

H.B. 85—Chiropractic Bill. This bill is designed to greatly expand the present chiropractic practice act. The Committee recommends that this bill be opposed.

H.B. 336—Registration of Naturopaths. The Committee recommends that this bill be opposed.

H.B. 239—Drunken Driver Law would change the present Missouri law to conform with Federal standards. The Committee recommends support of this bill.

The Committee is taking steps to have introduced a bill to consider blood for transfusions as a service and not a commodity. On motion of Dr. Matthews, duly seconded, the Legislative Report was approved.

Medical Economics Contract Committee

Dr. Wiegand reviewed the minutes of the meeting of the Medical Economics Contract Committee which was held in Jefferson City on January 19, with representatives of General American Life Insurance Company and St. Louis Blue Shield, to discuss mutual problems. Mr. Borman of General American Life Insurance Co. listed four general areas for discussion:

(1) The need to arrive at a reasonable charge for intramuscular injections by a physician exclusive of the cost of the injected drug. He stated that such charges have ranged from nothing to $15 and requested opinion as to a reasonable fee for such service.

(2) Itemizing charges for mileage. He stated that there is no pattern for such charges. Division of Welfare's usual payment under Medicaid was no allowance for first ten miles (one way), then $1.00 per mile (one way) more than ten miles.

(3) What is a reasonable charge for drawing and mailing of blood specimens by a doctor's office to independent laboratories?

(4) Social Security Administration is relaxing some of its itemization requirements for a number of services constituting a regular treatment procedure and when a physician desires will allow a "flat charge." Mr. Borman requested the committee's opinion regarding making recommendations on how General American Life might secure agreement from physicians and specialty groups to implement a "flat charge" for regular treatment procedure.

Dr. Wiegand reported that the Committee unanimously approved that Committee members recommend to their own groups and to the State Association that these organizations consider establishing a policy under which charges for paramedical services such as injections, blood drawing, etc., be based upon cost accounting not including professional services. Professional services of the physician will be charged separately. This agreement would cover both points (1) and (3) made by Mr. Borman.

Mr. Borman reported that General American pays injectables up to $3.00 without question and only seeks additional information on charges above that amount.

Item 2. The Committee recommends that payment for mileage in patient care other than to a hospital be: "no charge for the first ten miles (one way), and $1.00 per mile (one way) on all subsequent miles (one way)."

Discussion followed on Item 4, concerning a "flat charge" for certain services constituting regular treatment procedure. The Committee unanimously approved that the Committee go on record as having no objection to General American sending out a statement to physicians pointing out that the physicians may submit "flat charges" instead of itemized bills for certain services.

Dr. Wiegand reported that Mr. Davis of St. Louis Blue Shield appeared before the Committee and stated that Blue Shield is going into a program of usual, customary and reasonable fees for a number of full pay programs and needed help in the reviewing of questionable claims. It was pointed out that review committees already have been set up by each practice group for Title XIX. However, it was noted that Title XIX is statewide, whereas Blue Shield covers only part of the state. The Committee approved a motion that any further discussion on the subject relating to a St. Louis Blue Shield review committee or committees be tabled until after implementation by Blue Shield of a more democratic representation of component medical societies on the Missouri Medical Service, Inc. (Blue Shield) voting board, presumably at the June meeting.

After discussion, on motion, duly seconded, the report of the Medical Economics Contract Committee was approved.

Report of Mental Health Committee

Dr. Haddock presented the report of the Mental Health Committee which met in Jefferson City on Jan. 23, 1969. He indicated that the Committee discussed House Bills 65, 70, 77 and 43 in the Missouri Legislature, along with another bill to be introduced allowing counties to tax themselves to establish community mental health or retardation centers. House Bill 142, Psychologist Registration, also was discussed. The Committee went on record as recommending that if psychologists are to be licensed, that such licensing be under the State Board of Registration for the Healing Arts.

Dr. Haddock then called on Dr. Ulett to report on the Doctors of Osteopathy Residency Program in Psychiatry in the Division of Mental Diseases. Dr. Ulett reported that the psychiatric medical manpower shortage in the state was the main problem. He indicated that overcrowding in the State Hospitals has been reduced, yet the workload has increased. Dr. Ulett indicated that experience with Doctors of Osteopathy in the training program at Nevada has been very good, but he would like to rotate them to St. Louis State Hospital for additional training. He would like to begin this rotation in July, 1969. Much discussion followed regarding whether or not these physicians would be eligible for the AOA Boards of Psychiatry. Dr. Ulett indicated that the St. Louis training program had been inspected by the AOA Board inspection team, but he could not, in fact, say that these physicians would be certified by the OA Board. Of the 120 psychiatrists in training in the Division of Mental Diseases' program, only 11 are D.O.'s. Eight percent of the M.D.'s are ECFMG.

The Committee approved the following motion, "The Mental Health Committee approves the Division of Mental Diseases training program for Doctor of Osteopathy residents in psychiatry currently at Nevada State Hospital. We strongly recommend the improvement of the level of training in this program through utilization of the AMA Approved Psychiatry Residency Training Programs associated with other institutions of the Missouri Division of Mental Diseases and expecially that of the University of Missouri Department of Psychiatry located at the Missouri Institute of Psychiatry on the grounds of St. Louis State Hospital. We recommend that the Psychiatric Residency Training Program for Doctors of Osteopathy be conducted in an integrated fashion (both for teaching and patient care), with the AMA Approved Psychiatric Residency Training Program at this Department of Psychiatry in St. Louis."

On motion, duly seconded, the report of the Committee on Mental Health was approved.

Report of Eye Health Committee

Dr. Truman Schertz presented a letter written to the Council by Dr. Pernoud, Chairman of the Eye Health Committee. The Eye Health Committee indicated their opposition to a proposed School of Optometry at Missouri University. The probable initiation of the idea of a School of Optometry would be that a shortage of Ophthalmologists exists in rural areas of Missouri. The Committee feels that the solution to this problem is an inreased number of physicians, including Ophthalmologists, who can be trained and stimulated to locate in prescribed rural areas. The best way of achieving this would be to increase general enrollment in all the approved medical schools in the state. The Committee further suggested that this might be financed by federal or state government, or privately, through minimum interest loans with a contract so that an individual receiving such aid would be required to spend a certain number of years in an approved rural area. Many states have done this successfully.

Another solution the Committee on Eye Health recommends to alleviate the shortage of Ophthalmologists is "A Proposal for Career-Ladder Training of Ocular Allied Health Personnel." (12-page description of this on file in MSMA Headquarters Office.)

Under National P.L. 89-751 financing is made available for training of technicians referred to as allied health personnel. They have programs establishing training programs for dental assistants, dietitians, physical therapists, etc. It is agreed that those physicians who use trained technicians could double the patient care that an ophthalmologist can provide. Dr. Schertz indicated that this had already been started in Kansas City and St. Louis and would be started in Columbia in July at the Medical School.

In summarizing, Dr. Schertz indicated that the main portion of this report was to solicit definite action to strongly oppose any development of a School of Optometry under public funding in the State of Missouri.

Dr. McAlhaney stated that the Missouri Optometric Association meets in Springfield in April and they had invited an ophthalmologist to appear on one of their panels. After some discussion, it was decided that this matter should be referred to the Eye Health Committee and that future requests of this type be sent to the MSMA Headquarters Office. On motion, duly seconded, the Eye Health Committee report was approved.

Resolution Regarding Board of Allergy

Dr. James Willoughby presented a resolution proposing the establishment of a primary board in allergy by the American Medical Association. The resolution reads as follows:

WHEREAS, it is a fact that the practice of allergy is clinically important and encompasses the important fields of internal medicine, pediatrics, dermatology, otolaryngology, immunology as well as the primary field of allergy, and

WHEREAS, the American Board of Clinical Immunology and Allergy as a duly existing, acting and qualified board and the American Medical Association should approve a primary board in allergy under the supervision of the American Board of Clinical Immunology and Allergy, and

WHEREAS, prompt approval of primary board will:

1. Encourage further development of medical knowledge and maintain higher standards of practice and health care;

2. Create incentives to attract increasing numbers of young, capable physicians into the specialty of clinical allergy either on a full time or a part time basis.

3. To establish accredited residency training programs in accredited medical schools and hospitals for the purpose of basic fundamentals of immunology and clinical allergy.

4. To maintain and provide the highest level of ethics and professional standards in the specialty of allergy.

Therefore, be it resolved, that the MSMA House of Delegates approves the establishment of such a primary board in allergy and requests its AMA delegates to introduce an appropriate resolution on the floor of the House of Delegates of the American Medical Association.

Dr. Willoughby indicated that, at the present time, there are two routes for board certification for allergists: (1) Board certification in Internal Medicine with subcertification in allergy or (2) Board certification in Pediatrics with subcertification in allergy. He said that the great majority of certified allergists are pediatricians. He stated that currently there are ten to 12 approved residency training programs in allergy existing in the United States—all are controlled by the Board of Pediatrics or Internal Medicine. The State of Missouri has no allergy training program established in any of the three existing medical schools.

After discussion, Dr. Kerr moved that this resolution be accepted and presented to the House of Delegates for further consideration without recommendation. This resolution is to appear in the Council minutes in the Handbook for the House of Delegates March meeting. The motion was seconded and approved.

Delegates Handbook Material

Mr. McIntyre reported on a portion of the minutes of the Executive Session held on Saturday, December 14. He stated that the Budget Committee presented to the Council a written proposal requesting a raise in Association dues for the year 1970 to be presented to the House of Delegates in 1969. The present active member dues are $52.50 plus a $10.00 foundation assessment. The 1970 annual dues would be raised to $65.00 plus the $10.00 foundation assessment. The Council approved the dues raise recommendation for 1970. It was suggested that the proposal for the dues raise be published in Missouri Medicine before the next meeting of the House of Delegates on March 20, 1969. It was agreed that the proposal regarding the need for a dues increase be included in the mailing of 1970 dues statements, if passed by the House of Delegates. On motion, duly seconded, it was agreed that the dues increase proposal recommended by the Council be included in the Delegate's Handbook and appear in the March, 1969 issue of Missouri Medicine (yellow page).

Mr. McIntyre indicated that if the raise in dues is approved by the House of Delegates, it will be necessary to introduce an amendment to the bylaws at the Friday session of the House. He read the suggested word change for the bylaws. Dr. Franklin requested the Council members to urge their delegates to pass this dues raise.

President's Activities

Dr. Kerr reported on some of his recent activities as President of the Association. He reported that the Second Annual Conference on Nursing will be held in Chicago on April 11 and 12 and that a request had been received from AMA for a representative of MSMA to attend this conference with expenses being paid by AMA. It was suggested that Dr. John Walters, Chairman of the Committee on Nursing and Paramedical Personnel, be requested to attend this conference.

Dr. Kerr stated that he had received a letter from the AMA asking MSMA to appoint a State Association Committee to handle AMERF or send out a fund solicitation to our membership and that his reply would point out that our Auxiliary is working with AMERF while the MSMA is promoting our Missouri State Medical Foundation.

He indicated that he had been informed of another OEO project coming to St. Louis and his comments regarding this were that since there are already two projects being funded there is some overlapping of the districts and he feels that these matters should be held until some local or metropolitan overseeing agency can be organized to bring them together. The project also indicates that they will employ ten full time internists and he wonders wrere they will obtain these.

Dr. Kerr received a letter from the Bi-State Regional Medical Program, Committee on Continuing Education, asking that the MSMA suggest a member to be on that Committee. He indicated that he is on their advisory board and, therefore, could serve on the Committee on Continuing Education, unless the Council would like to propose someone else.

Dr. Kerr brought up the matter of promoting local chapters of SAMA at the three state medical schools. He suggested that we invite to the Annual MSMA 1969 Banquet the presidents of each of the four medical classes at the three medical schools, the local president of SAMA at Missouri University and the National SAMA president and their wives as guests of the MSMA. On motion, duly seconded, this was approved.

The Chairman then asked Dr. Gunn what decision had been made pertaining to the Pharmaceutical Company discussed on the previous day. Dr. Gunn indicated that it was agreed that the best way to handle this matter was to write a letter to the MSMA Executive Secretary, who could present this to the Missouri Pharmaceutical Association and that he (Dr. Gunn) also would send a copy to the St. Louis Medical Society for whatever action they may wish to take.

Reference Committees

Dr. Max then discussed the reference committees for the 1969 MSMA Annual Session and indicated that he would welcome any suggestions from the Council for appointments to these committees.

Kansas City Medical School

Dr. Miller urged that all Councilors give their wholehearted support to the proposal of a medical school in Kansas City and appealed to them to carry out the wishes of the House of Delegates in regard to this matter.

Ad Hoc Committee

Dr. Fisher indicated that he had been given suggested names of physicians to serve on an Ad Hoc Committee to study a new level of medical practitioner. The following Committee was appointed: Drs. Joseph C. Edwards, St. Louis, Chairman; Jack Colwill, Columbia; Edwin M. Powell, Springfield; Charles B. Ladd, St. Louis; Paul R. Young, Kansas City; Elvin D. Imes, Maryville; and Melvin C. Kasten, Cape Girardeau.

Next Council Meeting

Dr. Fisher announced that the next Council meeting will be held on Wednesday evening, March 19, 1969 at the Chase Hotel in St. Louis

On motion of Dr. Benoit, duly seconded, meeting adjourned at 12:15 PM.

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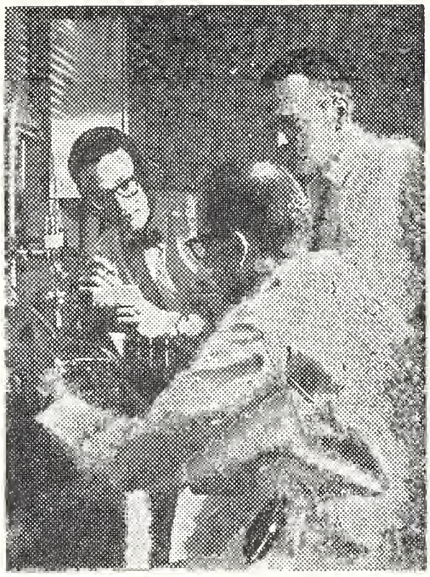

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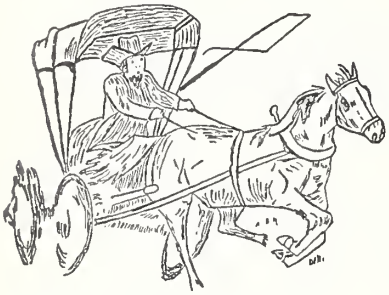

FORTY YEARS AGO

The Beaumont Hospital Medical College and the Marion-Sims College of Medicine became the St. Louis University School of Medicine. The St. Louis Medical College and the Missouri Medical College became the Washington University School of Medicine.

At Bundaburg, Australia, last January, 12 of 21 children inoculated with diphtheria toxin-antitoxin at one time died within the next few days. The mixture used was issued in rubber-capped bottles, but without the addition of an antiseptic to avoid possible risk from freezing. Each bottle was to be used at one time, but this was not done at first and fluid was withdrawn from one bottle several times in the course of a week. The postmortem and bacteriologic observations were all suggestive of an overwhelming infection with staphylococci. Evidently, the vial was contaminated during several shots and, in the absence of an antiseptic, the organisms multiplied in the fluid.

The Nodaway County Medical Society met following the regular staff meeting of the Sisters of St. Francis Hospital in Maryville on January 11. The meeting was opened by the Vice-President, L. E. Dean, M.D., of Maryville. The attendance was small because of the intensely cold weather. The Secretary reread Dr. Frank C. Wallis's resolution of the last month to amend the Society's By-Laws by increasing the annual dues to $4.00. Dr. Charles D. Humberd, Barnard, Treasurer, reported a balance of $59.75 in the treasury.

TWENTY-FIVE YEARS AGO

The 87th Annual Session of the MSMA will be held in Kansas City on April 23-25.

The deluge of articles on the assassination of Lincoln again has raised the question of the inaccuracies of human observation. All histories state that John Wilkes Booth fractured his left leg as he jumped from the box to the stage after shooting Mr. Lincoln. The dying man taken from the tobacco barn on the Garrett farm had a fractured right leg. As if this were not enough confusion, of the two physicians present at the autopsy on Lincoln, one certified that the ball was lodged behind the right orbit and the other that it was just posterior to the left orbit.

Dr. and Mrs. J. D. Smith, Shelbina, celebrated their 71st wedding anniversary on February 20.

Lt. William W. Gist, Kansas City, has been cited by Admiral William F. Halsey "for skillful and effective performance of duty under adverse circumstances while serving with a marine aircraft group in the Solomons."—The Cole County Medical Society gave a dinner in Jefferson City early in February in honor of Dr. Joseph S. Summers, Jr., who entered military service.

TEN YEARS AGO

The directors of the Kansas City Area Council of Boy Scouts have cited Donald H. Giesler, M.D., Osceola, for outstanding service.—The city of Cabool named Garrett Hogg, M.D., as "Man of the Year." At the same time, the Cabool Chamber of Commerce passed a resolution recognizing all persons in health work in the community.

Robert E. Mack, M.D., Assistant Professor of Medicine at St. Louis University Medical Service at the Veterans Administration Hospital has been awarded a grant of $16,740 by the United States Public Health Service for the training of physicians in the use of radioisotopes.

Gold Medal Awards of the American College of Radiology were presented to LeRoy Sante, M.D., St. Louis, and posthumously to C. Edgar Virden, M.D., Kansas City. The latter was received by his son, Herbert H. Virden, M.D., in Chicago on February 6.

Dr. Michael L. Mason, Chicago, Professor of Surgery at Northwestern University School of Medicine, will present the Tenth Annual Dr. F. G. Thompson, Sr. Lecture at the Thompson, Brumm, Knepper Clinic and Hospital in St. Joseph on May 21. His subject will be "Treatment of Acute Injuries to the Hand."

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MSMA Elects Joseph L. Fisher Next President

The 111th Annual Session of the Missouri State Medical Association was held on March 20, 21, 22 and 23 at The Chase-Park Plaza Hotel in St. Louis with 1,217 persons taking part in the various events and programs. Included in the total registration figure were 726 members, 64 guests and 133 members of the Woman's Auxiliary.

Officers of MSMA were pleased to learn that there was an increase of 172 physicians in attendance. Five hundred and fifty-four members attended the Annual Session in 1968.

The House of Delegates of MSMA held three sessions during the convention, discussing various Association problems and outlining policies and programs for the coming year. At the final meeting of the House, Joseph L. Fisher, M.D., of St. Joseph was named President-Elect of the Association.

Doyle C. McCraw of Bolivar was installed as the 1969-1970 President succeeding David N. Kerr of St. Louis. Dr. Kerr will continue to serve as a member of the Council for a term of one year.

Other elected officers were Vice-Presidents, Walter W. Tillman of Springfield, Dillard M. Eubank of Kansas City and Charles H. Lewellen of Louisiana; Delegates to the AMA, Hector W. Benoit, Jr. of Kansas City and Arthur W. Neilson of St. Louis; Alternates, Rae W. Froelich of Lebanon, Hugh E. Stephenson, Jr. of Columbia and Robert W. Kelley of St. Louis.

Five MSMA Councilor Districts elected representatives to serve on the Association's Council for the next two years. They are Lysle M. Bach, Hannibal, Second District; Robert A. Mayer, St. Louis County, Fourth District; William D. Bradshaw, Clinton, Sixth District; Howard J. McAlhany, Springfield, Eighth District; and Eugene T. Hansbrough, Poplar Bluff, Tenth District.

John N. Martin of St. Joseph was appointed by the Council to serve the unexpired, one-year term of Dr. Joseph Fisher for the First Councilor District.

At the Council meeting which followed the final session of the House, Gerald L. Miller of Kansas City was named Chairman of the Council; Walter T. Gunn was elected Vice-Chairman; John I. Matthews of Jefferson City was reelected Secretary; and Max S. Franklin of St. Louis was reelected Treasurer.

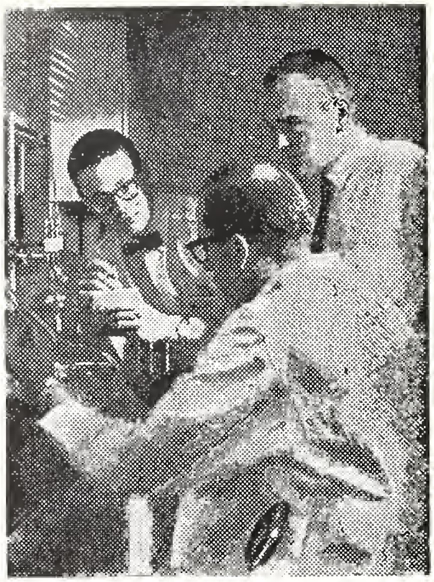
President-Elect Fisher, a specialist in radiology, served as Chairman of the MSMA Council during the past year. Born in Urich, Mo. he attended the University of Missouri School of Medicine and received his M.D. degree from Washington University School of Medicine in 1938. He interned at DePaul and Barnes Hospitals in St. Louis and served his residency at Columbia University Hospitals in New York. He now is Chief of the Radiological Departments at Missouri Methodist Hospital, St. Joseph's Hospital and State Hospital No. 2 in St. Joseph.

Joseph L. Fisher, M.D.
President-Elect

Dr. Fisher joined the MSMA in 1939. He has served as President of the Buchanan County Medical Society, Speaker of the MSMA House of Delegates and Councilor of the First District. He has been active in numerous civic and medical organizations, including the American College of Radiology, Missouri Division of the American Cancer Society and the St. Joseph Chamber of Commerce. He is a 32nd Degree Mason, was President of the University of Missouri Medical Alumni in 1965-1966 and has been Chairman of the Medical Advisory Committee to the Board of Curators of the University of Missouri since 1963.

Dr. and Mrs. Fisher are the parents of two children and live at 2903 Ashland in St. Joseph.

Major actions of the House of Delegates are



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Annual Session

(Continued from page 325)

highlighted in Dr. Doyle C. McCraw's "President's Message" on page 369.

The 112th Annual Session of the Association will be held at the Muehlebach Hotel in Kansas City on April 2-5, 1970.

Additional actions of the House will be included in the official minutes of the 111th Annual Session of the MSMA which will be published in the July issue of MISSOURI MEDICINE.

MSMA Members Invited To Spring Symposium

Members of the MSMA are invited to attend the St. Louis Academy of General Practice Spring Symposium on Practical Therapeutics on May 4 at the new Stouffer's Riverfront Inn in downtown St. Louis.

The meeting will be co-sponsored by the St. Louis Medical Society and the St. Louis County Medical Society.

Speakers will include Jeanne Bateman, M.D., "Recent Advances on Chemotherapy Management of Cancer"; Marvin Dunn, M.D., "Treatment of Refractory Heart Failure"; Douglas Goldman, M.D., "Depression"; Arthur W. Neilson, M.D., "A Review of What's New in Dermatology"; and Francis J. Carey, M.D., "Antibiotics."

There will be a special program for the ladies. Also, the ladies will join the doctors for a social hour and dinner after the scientific sessions.

Registration fee is $10.00 per person to cover the symposium, social hour and dinner. The fee for residents and interns is $8.00.

Reservations for the meeting should be made at the St. Louis Academy of General Practice, 3839 Lindell Blvd., St. Louis, Mo. 63108.

Out-of-town visitors should make their hotel reservations immediately by contacting Stouffer's Riverfront Inn, 200 South 4th St., St. Louis, Mo. 63102—phone 314-241-9500.

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$52,666,234 Spent On Medicaid In Missouri

Less Than One-Fifth Of Total Paid To Physicians

Less than one-fifth of the total expenditure for the Missouri Medicaid Assistance Program (Title 19-Medicaid) has been paid for physician services according to figures from the Missouri Division of Welfare for the first 16 months of operation.

During the period from November of 1967 through February of 1969, physicians have been paid $10,401,815.98 for services rendered to Missourians. This was 19.75 per cent of the $52,666,234.32 spent on the entire program during the 16-month period.

Hospital care comprised the largest expense for the program during the period. A total of $13,020,079.59 was paid to hospitals. This comprised 24.72 per cent of the total expenditure.

Running a close second was the amount paid to professional nursing homes which totaled $12,563,481.54 or 23.85 per cent of the total.

Spending for drugs in Missouri during the period totaled $9,431,975.74 or 17.91 per cent of the total.

Mental hospitals were paid $2,815,620.16 or 5.35 per cent of the total.

Dental care amounted to $2,174,614.00 or 4.13 per cent.

Outpatient Clinics received $1,978,008.06 or 3.76 per cent of the program's cost.

A total of $268,289.20 or .51 per cent went to TB hospitals.

Laboratory and X-ray charges amounted to $12,350.05 or .02 per cent of the total program cost.

CHANGE OF COMMAND — Retiring president David N. Kerr, M.D., St. Louis, left, presents the gavel to incoming MSMA President Doyle C. McCraw, M.D., Bolivar, on Saturday night, March 22 at Hotel Chase, St. Louis, during the 111th Annual Session.

Legislature Approves $150,000 For Kansas City Medical School

House Bill 16 which includes $150,000 in planning funds for the proposed Medical School at the University of Missouri-Kansas City, has been approved by both Houses of the Missouri Legislature and has been sent to the Governor for his signature.

Passage of the emergency planning funds is seen in Legislative circles as a commitment by the state to build the Kansas City school to increase the supply of Missouri physicians.

Foes of the proposed school have announced plans to attempt to block a $460,000 appropriation for further planning of the school. The $460,000 has already been approved by the House as a part of House Bill 7.

MSMA
News

MSMA COUNCIL OFFICERS — Gerald L. Miller, M.D., Kansas City, left, is the new chairman of the Missouri State Medical Association Council. Serving as vice chairman of the council is Walter T. Gunn, M.D., St. Louis, right. Re-elected as treasurer and secretary of the Association were Max Franklin, M. D., St. Louis, and John I. Matthews, M.D., Jefferson City. All were elected during the MSMA 111th Annual Meeting March 20-23 at Hotel Chase, St. Louis.

Program On Ambulance Service May 21

A program entitled "Ambulance Service In Missouri" is scheduled on May 21 at the University of Missouri - Columbia. Sponsors of the program include The Columbia Medical Center and Extension Division and the MSMA committees on Disaster Medical Care and National Defense and Trauma.

The meeting opens at 9 a.m. and concludes at 3:30 p.m. in the Memorial Student Union. Stressed during the program will be the major administrative problems associated with the availability of ambulance service in Missouri. Primary objective will be to help community leaders, hospital administrators, ambulance operators, funeral directors, law enforcement personnel, fire fighters and others to better understand the increasing problem of local ambulance service and to teach solutions for their communities.

Presentations and discussions will include: The National Highway Safety Act; the Minimum Wage Law, Available Federal and State Resources for Aid; Financing of Community Ambulance Services; Community Ambulance Service Organization and Administration.

There will be no registration fee for the open meeting. Tickets for a luncheon at noon may be purchased at the meeting.

U. S. Senate Committee Studies Medicaid, Medicare

It has been learned that the Committee on Finance of the U. S. Senate is studying the status and operation of Medicaid and Medicare programs. Currently, the Committee staff is seeking data on Title XIX (Medicaid) operations in all states.

The committee is compiling a list of names of each health care practitioner and supplier who was paid $25,000 or more from Title XIX funds during the calendar year 1968.

Medical Schools Get $32,715.57

Missouri's three medical schools have been presented with checks totaling $32,715.57 from the Missouri State Medical Association on behalf of the American Medical Association's Education and Research Foundation.

St. Louis University received $13,174.29 of the grant. A total of $12,769.82 went to Washington University. The University of Missouri-Columbia received $6,771.46.

Mrs. James A. Reid Elected President of Woman's Auxiliary

Mrs. James A. Reid, Marshall, was elected President of the Woman's Auxiliary to the Missouri State Medical Association at its annual meeting at The Chase-Park Plaza Hotel in St. Louis on March 20-23.

Other Woman's Auxiliary Officers for 1969-1970 are Mrs. William M. Walker, Springfield, President-Elect; Mrs. Thomas Thale, Ballwin, First Vice-President; Mrs. Charles E. Nickson, Jr., Second Vice-President; Mrs. James R. Nakada, Frontenac, Third Vice-President; Mrs. Marshall T. Metzgar, Columbia, Fourth Vice-President; Mrs. Charles R. Willman, St. Joseph, Recording Secretary; Mrs. Raymond J. Bozzo, Washington, Treasurer; Mrs. William H. Hickerson, Independence, Auditor; Mrs. Donald McCoy, Marshall, Corresponding Secretary; and Mrs. Jordon Kelling, Waverly, Parliamentarian.

Mrs. Reid, whose monthly message to members of the MSMA appears regularly in MISSOURI MEDICINE, received her B.S. degrees in Home Economics and Nursing from Kansas State University and the Kansas University Medical Center.

A Past-President of the Woman's Auxiliary to the Saline County Medical Society, she has served as First Vice-President, Third Vice-President, Auditor and Chairman of the Point System for the MSMA Woman's Auxiliary.

Mrs. Reid's contributions to her community have been outstanding. She is completing her eighth year as a member of the Marshall Board of Education; has taught Sunday School at the United Methodist Church for ten years; is Senior Advisor for the Marshall Senior Girl Scouts and the Area Planning Board for the Senior Scouts in Marshall; has been a qualified instructor in the Red Cross Mother and Baby Course for ten years; is a Past-President of the Marshall Parent Teachers Association, Marshall Teen-age Senior Board, Sigma Theta Tau (National Honor Society of Nursing), Delta Zeta Alumni, Monday Club and Woman's Society of Christian Service; and is a member of the Fitzgibbon Hospital Auxiliary, American Association of University Women, PEO and the Missouri State Nursing Association.

She and Dr. Reid, who is in the private practice of medicine in Marshall, have three children.

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Special Feature

Basics in Medical PR

by

JIM REED

Director of Communications
American Medical Association

The following remarks originally were made by Mr. Reed at the 1968 AMA Communications Institute in Chicago. Fortunately, they also comprised the major part of his address at the MSMA Officer's Conference in Jefferson City in January, 1969. Mr. Reed's message is authoritative, timely and needed, and it should be utilized by every physician. His use of humor adds emphasis to his observations and suggestions. It also makes for delightful reading.—The Editors.

Most of us here today are concerned with some aspect of medical public relations. Public relations is an interesting activity because it deals with the public. And people are interesting:

—people like the man who wrote to the internal revenue and said that he had once cheated on his income tax and couldn't sleep. He enclosed a check for $25 and ended the letter, "If I still can't sleep, I'll send the rest."

—or the man who wrote to the medical society and said, "Send me everything you have on personal hygiene. I think I've got it."

—or the woman who wrote, "Dear Doctor, please send me some of those pills to be used in any conceivable circumstance."

What people do, what they think and how they react are of concern to all of us.

There was a time when communicating with the public was a little easier than it is today. Although we lacked some of today's modern communications tools and techniques, the people were, in many ways, easier to reach. They had fewer things vying for their time. There weren't as many men and issues clamoring for attention and consent in the public opinion marketplace.

The world in those days seemed to be in pretty good order. From the turn of the century, man had been born into an environment to which, if he wanted to survive, he was obliged to accommodate himself.

Well, the world no longer is tidy and well ordered in anybody's mind. It is a shrinking, fast-moving world of danger and tension permeated by nightmarish fears, characterized by dynamic change.

Attitudes have changed. When you mention ethics, some people think you are talking about an old-time automobile. And there's something wrong with our sense of values. Tiny Tim is paid $50,000 a week, but some people think it's wrong for a physician to make that much in a year.

Inflation is all about us. It now costs five cents to put your two cent's worth on a penny postcard. And, as if doctors weren't busy enough, now they have to check over middle-aged men who jog. They ride sit-down lawnmowers and motorized golf carts, drive the car one block to the drugstore and then jog for exercise.

It's hard for me to get used to the picture of the child standing at a school blackboard writing 500 times, "I will not pray in class."

There are other paradoxes:

—Out of 365 days in the year, we devote one each to mother and father and seven to National Pickle Week.

—We are told who won the election before the polls close. It's like reading the last chapter of a whodunit first.

—We spend billions of dollars a year for defense, but we can't safely walk after dark in our own neighborhoods.

—It takes less and less time to fly across the nation and more and more time to drive home from the office.

—We're about to land a man on the moon, but we can't get the pigeons off city hall.

—The Great Society, which set out to cure poverty, is about to cure wealth.

And how about those "talk" programs on radio and TV? They're part of the violence we hear so much about on television. The western shoot-em-ups are mild compared with the Joe Pynes.

Today, it is college in three years instead of four . . . instant breakfast . . . zip code . . . speed reading . . . and go, go, go.

It is not easy in these fast-moving times . . . when too many are talking too much and too few are listening too little . . . to attract the public's attention or to hold its interest.

The challenge before us today is to cope with these changing times. We cannot hold to our anchors with the winds of change blowing all about us. And we cannot back into the future looking wistfully at the past, as tempting as it might be. Just as the medical profession must reexamine its traditional practices to make sure they are in line with changing medical needs, so must medicine's communicators tailor programs to match the fabric of the times.

This morning you heard Doctor Wilbur discuss the importance of leadership. If the medical profession is to retain leadership in directing the course of medicine, there must be effective communication.

Successful leaders of all ages, from Saint Paul to Julius Caesar and from Abraham Lincoln to Winston Churchill, found that effective leadership came about largely through effective communication and they understood clearly the importance of public sentiment. More than a hundred years ago, Lincoln said, **"Public sentiment is everything; with public sentiment, nothing can fail; without it, nothing can succeed. He who molds opinion is greater than he who enacts laws."**

Doctor Wilbur, in his inaugural address, put it this way: "Basically, public opinion is the most powerful determinant and the ultimate force that in the long run will determine the social, economic and political course of this country and will decisively determine the future patterns of health care. The key question, then, becomes, who and what will shape public opinion?"

If we are to preserve the incentives and effectiveness of unshackled medical practice, which the medical profession believes is in the best interests of the public, then the answer to Doctor Wilbur's question is obvious. It must be the medical profession that shapes public opinion on all matters pertaining to medical practice.

In order for us to communicate effectively so we can help to shape public opinion, we must understand the role of communications in this partnership and the limitations of public relations. We must understand what "PR" is and what it is not.

Unfortunately, there are still some who believe that public relations is just a device to cover up shortcomings . . . or a high-powered publicity campaign to whitewash imperfections. Public relations is none of these things.

Medical public relations is the continuous process by which the medical profession endeavors to obtain the confidence and good will of the public—inwardly by self-analysis and correction to the end that the best interests of the people will be served; outwardly by all means of expression so that the people will understand and appreciate that their welfare is the profession's guiding principle.

Briefly stated, it is doing good and getting credit for it.

To do good without getting credit for it is like winking at a girl in a dark room. You know what you're doing, but nobody else does.

The "doing good" is up to the profession, individually as practicing physicians and collectively through their medical associations. The "getting credit" is where the PR department can help.

Good public relations does not come from gimmicks. It must be earned. It must be built on deeds, not words . . . on performance, not promise. Hokus-pokus will not alter public opinion. And a lot of politicians are going to find that out come November. They will be voted out of office with the help of many who voted them in, because what the public interprets as being in its interest today may change next week.

The people still decide what's good for them. Even paid advertising can't sell them something they don't want—and the Edsel automobile is a good example. Because the public is better educated and more interested, there will be increasing scrutiny of business and other institutions by the people to see if what they regard as the common good is fully served.

That is why the Du Pont Company, for example, believes that *you must live right before you tell people you are living right.*

Du Pont and many other large corporations that once had a "public be damned" attitude learned public relations the hard way. They learned that they could not be indifferent to what the public thought of them and their deeds, that they could not function without public consent and, to obtain that consent, they must act in the public interest as the public interprets it at any given time. These corporations have left in the public relations textbooks some lessons we cannot afford to ignore.

In medical associations, it is the policy-making body that determines what the organization is to do. What the association does makes an impression on the public. The impression on the public determines whether the association's PR is good or bad.

Therefore, all policy-making actions should be based on two considerations:

1—What will the public think about this action?

2—If this action is necessary, but likely to be unpopular, how can we "sell" it to the public?

PR should be considered before any new policy or program is developed and not used as a "mop up" after mistakes are made. These policy actions, or programs, should be sound, honest, fair to all concerned, timely and in the public interest. The stance should always be positive, showing responsiveness and leadership on problems people perceive and on those just beginning to emerge.

"You'd be surprised at what it does for their morale!"

Sometimes medicine announces an excellent program that is in the public interest. But instead of getting a lot of good PR out of it, we are criticized for being so slow to respond to the problem.

The House of Delegates determines AMA policies largely on resolutions from the membership through county and state societies. The image of AMA could be enhanced if all these resolutions were meaningful, clearly understood and contributed to the needs of the public. Unfortunately, many do not.

I recall one that was a real dandy. The medical society executive said it was sent to AMA because, as he put it, "it was too hot to handle at home." Had it been handled at home, the bad publicity generated probably would have been confined to one state. But when it came to AMA, the bad publicity was scattered over 50 states.

I mention this because concern with image seems to be a symptom of the complex society in which we live. Through incessant use, the word has become a tired cliche in the vocabulary of everyone from corporate executives to labor leaders. Madison Avenue advertising agencies borrowed the word from psychologists, and some of them would like to give it back. And like some physicians, a number of advertising men write and talk on the assumed fact that the public does not love them as well as they know they deserve to be loved.

As one advertising executive said, "If this obsession is carried too far it can detour from our professional goal which should be respect, not love."

Many articles on image are written by physicians or based upon interviews given to the press by doctors and they lament "the shocking erosion of the doctor's image."

It is one thing to discuss your image and what to do about it among your colleagues in a closed medical meeting, but quite another thing to tell the public your image is slipping. If you tell the people often enough that your image is bad, eventually they might believe it.

Most of the articles on this image business state categorically that "people love and respect their own doctors, but dislike doctors and doctor organizations."

Let's examine that statement.

In every study on prestige or public esteem, physicians rank first or a close second among all occupations.

In public opinion studies made at regular intervals so ground gained and lost can be analyzed, the reputation of physicians has slipped in several key areas which come under the heading of physician-patient relations. The public's criticisms concern fees, long waits in the reception room, poor diagnosis, too little time given the patient, impersonal attitude of the doctor, difficulty in seeing a doctor and so on.

We all know that the march of science has altered this relationship and that some of the criticism is due to misunderstanding, but, nevertheless, this is public opinion and it concerns individual physicians.

To build a public relations program on the premise that the physician's image is slipping solely because his medical organization has a bad image would not be getting to the root of the whole problem. **Until times change even more than they have, the foundation for sound public relations in medicine remains the individual human relationship between physician and patient. It has been said that the voluntary association of two men, one giving and one seeking relief, is the heart of the art of medicine.**

What about AMA's image?

When Gallup asked the public to voice its opinion on eight national organizations, AMA placed second to the FBI.

When Opinion Research Corporation asked the public which organization had done the most to improve the health of our nation, AMA came out on top.

Yes, but someone says medicine's leadership is not what it used to be.

In mid-June, the Louis Harris Survey asked the American people this question: "Compared with what we have produced in the past in this country, do you feel that our present leadership in these eight categories is better, worse or about the same as we have produced in the past?" The eight categories were medicine, science, business, newspapers and magazines, arts and entertainment, local government, federal government and politics.

Medicine came out on top by a wide margin. Eighty-eight percent said medicine's leadership is better. But get this: Only 43% said that those in charge of the mass media are better. Politics was at the bottom of the list with 13%; the federal government just a shade better at 19%.

Mr. Harris said, "Medicine and science clearly are the new 'sacred cows' of American society in the late 1960's."

We should not confuse what some members of the press, some labor leaders and some politicians say about the medical profession and the AMA with the public's opinion. It's **the public opinion that counts.** In the image and prestige studies, you will find almost without exception that medicine's critics rank low on the totem pole of public esteem. They have a credibility gap. And as a result, their charges against medicine have not had a great effect upon public attitudes to date.

All of this does *not* say that the image of the individual physician and his medical organizations is bright and shiny and that we should enjoy the coziness of the status quo. It does say things are not as bad as they may seem and that this is no time for panic and sagging morale.

It is a time for leadership and action . . . time to approach sound communications programs at all levels of medicine with vigor and foresight. For while we have a strong foundation on which to build, criticisms, if voiced often enough and long enough, will begin to wear away at the image just as drops of water finally wear away a stone.

We must give more emphasis to public relations in the area of physician-patient relations. It is hard to believe that in this day of transplants, modern drugs and new tools and techniques which physicians are using with astounding success, that the legend of Dr. Christian arriving at the farm house at midnight in a blizzard with orders to "boil some water" still haunts the profession. Somehow, we have failed to help the patient to realize that the new doctor and the old doctor is and was the product of his times. And these times, as I tried to point out in my opening remarks, *are* different.

Yesterday's physician was personally in contact with the patient and the family. They saw him, heard him, talked to him as he tended to almost every phase of medical care. Today, in general, where the personal touch it still in evidence, the patient still has an affectionate feeling toward the doctor. It's quite natural, however, that he is less likely to be affectionate toward the doctor he never sees or can't remember seeing—the pathologist, radiologist and some of the other specialists. When he receives a bill "for services rendered" from a physician he never heard of—and that happens frequently—there is a reaction.

Time is a scarce commodity, but if the family physician would explain to the patient the significance of the roles of the other physicians in modern medical practice, PR would be improved.

Even as times change, some things remain the same. And some of the basic fundamentals of medical public relations still are important, if we are to listen to what the public is saying.

Practicing good medicine, truly caring for the patient as a whole human being, wisely handling fees and their payment, telling the patient more about his illness, explaining why the doctor can do more for the patient in the office than on a house call and why house calls cost more, scheduling appointments to eliminate long waits in the reception room . . . these and other factors vital to good physician-patient relations still constitute about 90% to 95% of the doctor's PR.

Remember what Jenkin Lloyd Jones, the Oklahoma publisher, told this Institute in 1964? He said, "You gotta have heart. Your genius is conceded. Your techniques are admired. Your researches are held in awe. But these things won't save you from the smothering embrace of the Welfare State. It is your heart you have to prove."

One prominent physician, when asked for the secret of his remarkable popularity with patients, defined it this way: "It's easy. All I do is to visualize myself in the patient's shoes and treat myself accordingly." Do unto others as you would have others do unto you is a golden rule for public relations, too.

As we plan public relations programs at the medical society level to fit in with the changing times, we should not neglect the cornerstones designed to meet an important PR need and to eliminate sources of criticism by the public. These include provision of emergency medical care on a round-the-clock basis; a grievance committee to hear patients' complaints; development of good working relations with newspapers, radio and television; an active speakers bureau supplemented with other health education activities; orientation programs for new society members; public service projects; and community relations programs. These basic programs, of course, should be supplemented by those that fit into your overall constructive PR plan.

It isn't enough that you have emergency care programs and grievance committees. The public must know about them and how they work. If the people do not know that your society is a good citizen of the community, you are no further ahead however well you try to conduct yourself. The doing must be supplemented by the saying.

How well we communicate our story often depends upon how well we use words. What may be crystal clear to the sender of the message may not be clear to the receiver.

You may have heard the story about the World War II correspondent who was writing a personality sketch on General Mark Clark. He had most of the information he needed, but there was some question about the General's age. So he wired command headquarters in journalistic cablese: HOW OLD MARK CLARK? And the reply was just as efficiently cabled back: OLD MARK CLARK FINE. HOW YOU?

Like the tango, it takes two to communicate. There can be no effective communication without reception. At all levels of medicine we need to make sure that our communications are clear, that we say what we mean and that the receiver will get the message intended for him.

Phraseology is important, too.

We should refer to the doctor's outer office as a "reception room," not a "waiting room." When we use "organized medicine" instead of the "medical profession," we play into the hands of those who like to refer to it as a "powerful union of doctors."

There seems to be a notion, too, that if a document is to be important it must be long. In fact, some of our reports and studies appear to have been prepared by the pound, rather than by the page. There is absolutely no validity to the notion that importance and length go together.

Lincoln's Gettysburg Address contained 266 words; the Declaration of Independence contained 1,238 words; but a World War II manual on pricing cabbage contained 27,600 words.

Newsletters are read because they are brief, and to the point. However, there are two-pound documents collecting dust on the shelves of every medical society in the land.

There's a reason why the word "verboten" follows "verbosity" in the dictionary.

Here are some other areas that I believe deserve attention if we are to improve our communications and public relations:

—We should establish public relations courses in all medical schools. The other two ancient learned professions instituted PR and journalism courses in their schools years ago.

—We should get the facts on the economies of health care so we do not have to rely solely on facts and figures compiled by others. Too often, statistics gathered by others are used like a drunk uses a lamp post—more for support than for illumination.

—We should try to instill in all physicians and in all members of staff a public relations point of view; some term it public relations thinking. Practically everyone connected with medicine is a communicator in one way or another and all statements should be in keeping with the association's clearly defined policies and objectives.

—It would be much more desirable and, in the long run, much more productive if physicians who criticize medicine would confine their criticism within the house of medicine where something can be done about it, instead of taking it first to the *New York Times.*

—We must work toward the day when there will be a place in the schools of medicine, nursing and those allied with the health field for all qualified students who desire to enter. A recent national survey showed that 2,400,000 teenage girls want to become doctors or nurses. Will there be a place for those who are qualified or will they be forced to choose other careers at a time when medicine desperately needs them? The biggest contribution we can make today to medical public relations is to get behind the program to get more medical manpower.

—And as you review your programs in light of these changing times, may I recommend that you read again Board of Trustees reports "B" and "C," approved by the House of Delegates in San Francisco. They have been reproduced and are available on the table outside this room.

I noticed some of you wince a little as I mentioned programs, which brings me to my last point.

All of us have seen on stage or television the juggler who spins plates atop limber sticks. He places the stick in a hole in a table, balances a plate on top, shakes the stick and the plate spins. Then he hurries about the stage setting up other sticks and plates until the whole stage is covered with whirling platters. When a plate begins to wobble, he dashes to it, shakes the stick and spins again.

I like to compare the juggler in this scene with the medical association executive, whether he be at the county, state or national level. The plates are programs. Every one of the dozens of programs is someone's favorite. To him, it is the most important program of all.

When one of the program-plates begins to waver, the medical society executive rushes to give it some attention by shaking the stick, and it spins again. So he dashes about to and fro giving just enough attention to each program so its supporters can see that there is activity.

The problem is simply this: *We've got more programs than we can shake a stick at!*

Some programs obviously are more important than others and deserve special attention, but it is not possible to concentrate on the important when you must keep all of the plates spinning. Furthermore, each time policy-making bodies meet, they add new programs. Seldom is a program eliminated.

We cannot cover everything and do it well.

We can all improve medical public relations by sifting the wheat from the chaff, devoting our time and energies to the vital programs that meet the present and emerging needs and shelving, at least for the present, the programs that do not have top priority and are not part of a constructive plan.

These are some of the things I hope you'll consider as you contemplate your role as a medical communicator in these changing times.

ACCIDENT AND HEALTH INSURANCE

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WHAT'S SO WEAK ABOUT THE WEAKER SEX?

Jim Reed, Charles Lauer Receive AMA Appointments

Two top-level staff appointments have been announced by Ernest B. Howard, M.D., executive vice-president of the American Medical Association. They are Jim Reed, who moves from director of the Communications Division to assistant to the executive vice-president, and Charles S. Lauer, who becomes director of AMA's Communications Division.

Mr. Reed joined the AMA staff in 1958 to initiate *The AMA News* and to be its first editor. He became director of the Communications Division in 1961. He will be one of two assistants to the executive vice-president. The other is Leo E. Brown, who has held the post since 1961.

Mr. Reed will be assisted by Robert W. Riley, who has been assistant director of the Communications Division; Charles E. Miller, who has directed the Speakers' Services Department; and Edward A. Uzemack, who has directed the Officers' Services Department.

Mr. Lauer joined the AMA staff in 1959 and has been director of its Advertising Department since 1964. In addition, he has been assistant director of the Management Services Division since 1967.

The Division which he now heads includes *The AMA News*, the monthly *Today's Health* magazine, the weekly *Medical News* section of *The Journal of the AMA* and departments for radio, television, and motion pictures; magazine relations; press relations; editorial services; and program services including pamphlets, displays, and other publications.

Dr. Howard said the changes are prompted by a need for additional manpower in his office, particularly to provide services to AMA's elected officers as they communicate with the profession and public, and for more effective AMA communication with state and local medical societies, medical specialty groups and the Student American Medical Association.

(As Director of the Communications Division for the AMA, Mr. Reed was a featured speaker at the 1969 MSMA Officer's Conference in Jefferson City. His remarks at the meeting appear on page 328—Ed.)

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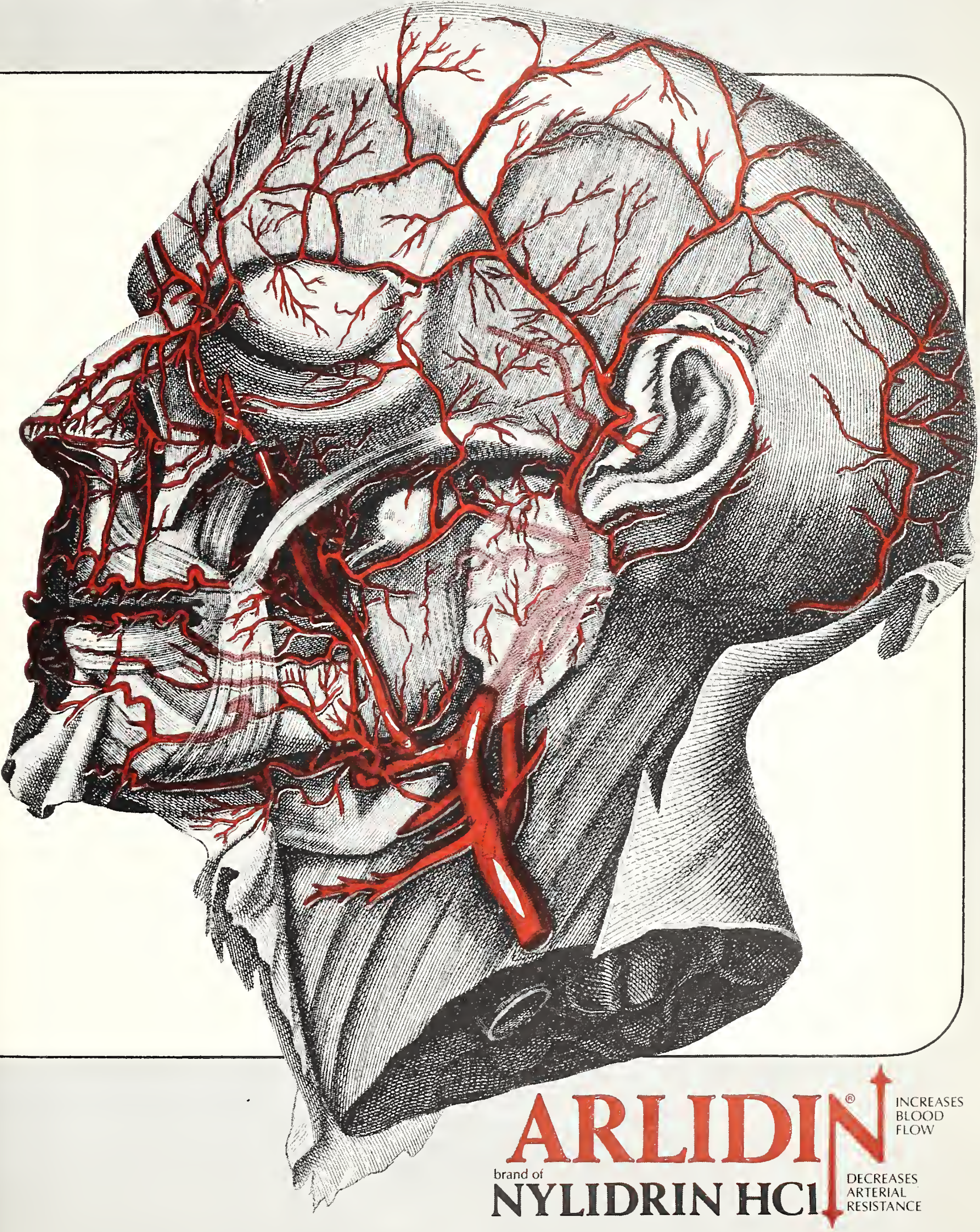

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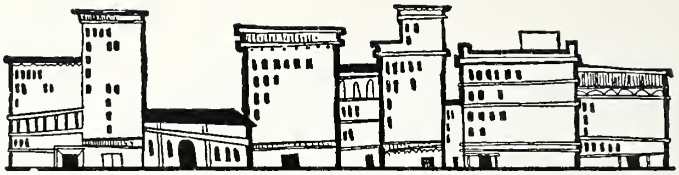
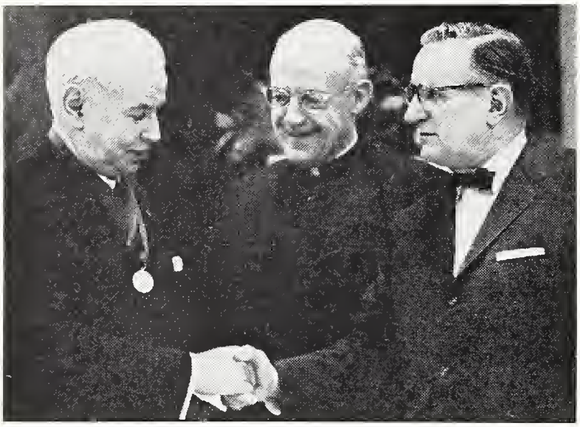


ST. LOUIS UNIVERSITY



(Left to right) **Dr. Francis J. Braceland, recipient of a Sesquicentennial Award at the School of Medicine, is congratulated by Rev. Paul C. Reinert, S.J., and Dr. Edward T. Auer.**

Dr. Francis J. Braceland, editor, *American Journal of Psychiatry* and senior consultant and chairman of development and planning at the Institute of Living, Hartford, Conn., received a Sesquicentennial award at the School of Medicine following a recent guest lecture on "Psychiatry Now and in the Future." Conferral of the award was made by Rev. Paul C. Reinert, S.J., University president. Congratulatory remarks were made by Dr. Edward T. Auer, professor and chairman of the department of neurology and psychiatry at St. Louis University. The award was given in conjunction with the University's observance of its 150th birthday.

Dr. Pepper

Dr. Max P. Pepper, associate professor of public health and psychiatry at Yale University School of Medicine, has been named professor and chairman of the department of community medicine at the St. Louis University School of Medicine. He will assume his new post on June 1.

Dr. Pepper has been associated with Yale University for 11 years. He has had a wide range of experience in public health and preventive medicine and has held the rank of associate professor in the departments of psychiatry, epidemiology and public health and sociology at Yale since 1965. Since 1967, he has been Director of Planning in the Office of the Dean at the Yale Medical School for the Comprehensive Health Center Program in New Haven's Hill Neighborhood.

Dr. Pepper was chief of the Hill-West Haven Unit, Connecticut Mental Health Center from 1965 to 1967 and Director of Connecticut's Mental Health Planning Project from 1963 to 1966. He holds both the doctor of medicine degree, awarded by the University of Pennsylvania School of Medicine, and the master in Public Health degree, awarded by the Yale University School of Medicine.

Rev. Edward J. Drummond, S.J., Vice-President, Medical Center, has announced that the Department of Community Medicine is newly established and will become an integral part of the curriculum. He said that the new department will encompass the latest developments in epidemiology, preventive medicine, public health and medical care administration.

St. Louis University will add to and improve St. Louis University Hospitals if pending federal grants requests are approved. Father Drummond stressed that construction and modernization plans are contingent upon receiving federal funds. He said that applications for grants have been submitted to the U. S. Department of Health, Education and Welfare. If approved, new construction projects including an addition to Firmin Desloge Hospital, 1325 S. Grand Blvd., and a verticle transportation tower would begin early in 1970.

Dr. D. Elliott O'Reilly, associate clinical professor of orthopedic surgery and chairman of the department, delivered a paper before a postgraduate program on Children's Orthopedics sponsored by the American Academy of Orthopedic Surgeons held in Pittsburgh. The meeting was one of 30 postgraduate programs sponsored nationally by the Academy.

Dr. Raymond G. Slavin, assistant professor of medicine, School of Medicine, delivered an address entitled "The Clinical Management of Allergic Diseases" at DePaul Hospital on April 2.

WASHINGTON UNIVERSITY

An urgently needed center to care for persons suffering from chronic kidney disease will be established by Washington University as a result of a quarter of a million dollars donated by Chromalloy American Corporation.

Dr. Neal S. Bricker, professor of medicine and head of the renal division of the Washington University School of Medicine, has received the check which will finance the construction of the center and the purchase of artificial kidney machines. The Chromalloy American Kidney Center will be located in Barnes Hospital of the Washington University Medical School and Associated Hospitals complex.

The donation is being made by Chromalloy American through charitable foundations maintained both by Chromalloy American and The Valley Line Company of St. Louis, a wholly-owned subsidiary. Approximately half of the contribution was made by the corporations through their foundations and the other half was subscribed personally by officers and other officials of both companies.

How responsive should the undergraduate medical curriculum be to community medical needs? This question was discussed at the Washington University Medical Society meeting on March 20.

Expressing their views on the topic were Walter F. Ballinger, II, M.D., Bixby professor of surgery and head of the department; Carlton C. Hunt, M.D., Edward Mallinckrodt, Jr. professor and head of the department of physiology and biophysics; M. Kenton King, M.D., dean of the school of medicine and professor of medicine and of preventive medicine and public health; and Gerald T. Perkoff, M.D., professor of medicine and of preventive medicine and public health and head of the division of health care research.

The program also included a roundtable discussion of the question with these faculty members and medical students: Robert Kolodny, senior; David Scharp, junior; and Robert Levy, sophomore. Samuel B. Guze, M.D., professor of psychiatry and associate professor of medicine, was moderator.

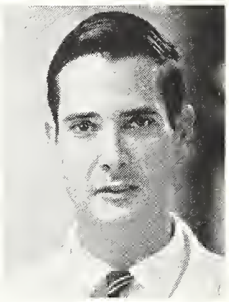
Twenty-four of the 82 students graduating from the School of Medicine in June will begin practicing medicine in six St. Louis hospitals. In addition, 12 from the St. Louis area will associate with hospitals in nine other states. The senior medical students have received word of their internship appointments from the National Intern Matching Program.

Seven fourth-year students at the School of Medicine presented papers at the Senior Research Assembly on March 26.

The papers and their authors are "General and Regional Enzymatic Activities in the Developing Rat Brain and Activities in 24 Regions of Human Brain," Kenneth Sims, Lubbock, Tex.; "Studies on Sperm-Agglutinating Antibodies and Infertility," Robert C. Kolodny, Scarsdale, N. Y., and Barbara Cox Koehler, Boonton, N. J.: "Utilization of the LINC Computer in Infant Vectorcardiography," Davis M. Swan, Riverton, Wyo.; "The Effect of Fasting, Dietary Composition and Actinomycin on the Insulin Secretory System in the Rat," Steven Goldring, St. Louis; "The Effect of Glomerular Obstruction on Renin and Sodium," Sydney Smith, Jackson, Miss.; and "Serological and Bacteriological Studies With Colostrum and Milk of Guatemalan Indian Women," Richard G. Wyatt, Lebanon.

UNIVERSITY OF MISSOURI

Dr. John N. Lukens, assistant professor of pediatrics in the School of Medicine, has been named a Markle Scholar in Academic Medicine for 1969, an honor accorded annually to only 25 young medical scientists in the United States and Canada.


Dr. Lukens

In addition to the honor, the sum of $30,000 is paid at the rate of $6,000 a year for five years to the medical school at which each of the Scholars will teach, do research or administration. This sum is to be used to supplement salary, aid research or otherwise assist in the development of the Scholar as a teacher or investigator.

Dr. Lukens joined the School of Medicine faculty in 1967. He has been responsible for the hematology program and the medical student curriculum in pediatrics. Attesting to his abilities as a teacher, medical students recently voted him the "Golden Apple Award" given to the outstanding teacher in clinical medicine. Students also selected him as one of three faculty advisers to the Student Executive Committee.

(Continued on page 341)

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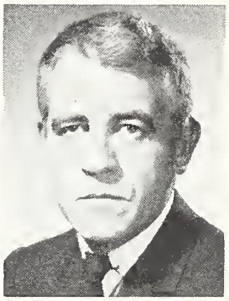
Medical Schools

(Continued from page 339)

Dr. Lukens is the seventh Markle Scholar selected from nominees from the University of Missouri-Columbia School of Medicine in the past nine years. Other Markle Scholars currently on the faculty of the Missouri School of Medicine include Dean William D. Mayer, Dr. Hugh Stephenson, Jr., Dr. Donald A. B. Lindberg, Dr. Clement Brooke, Dr. Calvin Woodruff, Dr. Philip C. Anderson and Dr. Charles E. Mengel.

Dr. Bruce Ward Everist, Jr., chief of the department of pediatrics at Green Clinic, Ruston, La., is the 1969 recipient of the Citation of Merit Award presented by the medical alumni of the University of Missouri-Columbia. The presentation was made at a luncheon meeting of graduates of UMC during the 111th Annual Session of the Missouri State Medical Association on March 20-23 in St. Louis.

Dr. Everist was cited for his work with children as a private practitioner and for his national prominence in the field of medicine.


Dr. Everist

A native of Tarkio, Dr. Everist received his B.S. in Medicine degree from the University of Missouri in 1942 and completed his clinical studies in medicine at Louisiana State University.

The presentation of the Alumni Citation Award was made by Dr. Berneil Andrews, North Kansas City urologist, who has served a two-year term as president of the M.U. Medical Alumni Association. Succeeding him is Dr. William H. Snead, a Springfield surgeon.

Named as associate members of the alumni association are three Missouri physicians who are not UMC graduates but who have contributed substantially to the advancement of the University's School of Medicine: Dr. B. J. Bass, Salem; Dr. John T. Crowe, Cape Girardeau; and Dr. Eugene B. Robichaux, Excelsior Springs.

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Notes of interest from Here . . . . and There

After serving six two-year terms as Mayor of Paris, **Dr. F. A. Barnett** was not a candidate for reelection on April 1. This announcement appeared in the *Moberly Monitor-Index & Evening Democrat* in a feature story describing the many community projects accomplished during Dr. Barnett's terms of office. Dr. Barnett has stated that doctors should take an active part in the vital projects undertaken in their communities. His many activities in this respect include his service as chairman of the Missouri Community Betterment Program in Paris, president of the Paris Development Corporation, membership in the Paris Progressive Club for many years and service as an elder in the Christian Church. He is especially proud that he recently was one of four men from the Great Rivers Boy Scout Council area to receive the coveted Silver Beaver Award, the highest to be bestowed upon a Boy Scout leader.

Dr. William C. Allen, Columbia, was one of seven alumni to be honored at the 23rd Annual Founders' Day and Alumni Award Convocation of Central Methodist College in Fayette in March. Dr. Allen, who attended the College from 1938 to 1941, is an assistant director of the University of Missouri Medical Center and associate coordinator of the Missouri Regional Medical Program. He was in private practice in Glasgow from 1952 to 1959 and director of the section of chronic diseases of the Missouri Division of Health in Jefferson City from 1961-1965.

Dr. Carl C. Smith, Moberly, has retired after practicing medicine for 48 years. Dr. Smith began his practice in Moberly in 1931. An eye, ear, nose and throat specialist, he was associated with the Wabash Railroad in Moberly for 15 years, has been medical examiner for pilots qualifying for licenses through the Civil Aeronautics Administration since 1936, has been city physician for 22 years and was company physician for the former Brown Shoe Co. in Moberly for three years. He received his M.D. degree from the St. Louis University School of Medicine.

The medical staff of Jefferson Memorial Hospital in Festus and the Twin City Area Chamber of Commerce have announced that **Richard N. Romero,** M.D. has joined the hospital staff. Dr. Romero began the practice of internal medicine on March 3 and shares an office with **Dr. David Glasgow** in Crystal City. He and his family will reside in Festus.

Dr. Luis Angles and **Dr. Ben Z. Abella** of Kansas City have established medical offices in the building formerly occupied by the late Dr. O. B. Barger in Belton.—Six physicians have been named to positions at the Farmington State Hospital. New staff physicians assigned to psychiatric units include **Enver Yalcin**, M.D., **Metin Arat,** M.D. and **Jack Cotton,** D.O. **Pedro Suarez,** M.D. is a resident psychiatrist assigned to the Alcoholic Treatment Center. Surgical residents are **Mohammed Islam,** M.D. and **Debriprasand Chauduri,** M.D.

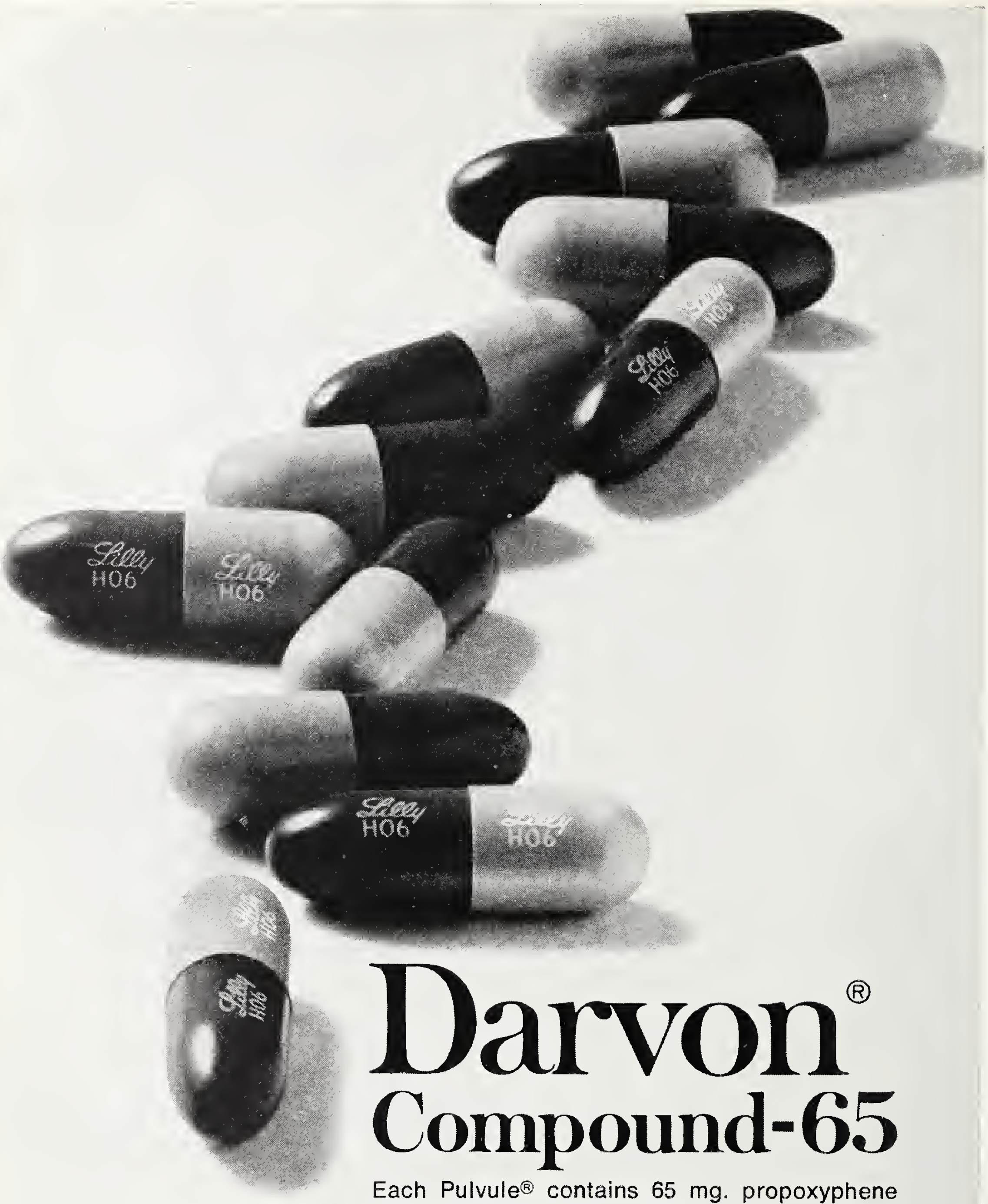
Dr. Arthur E. Strauss, St. Louis, was the subject of a feature story by **Mr. Jack Martin** in the *St. Louis Globe-Democrat* recently. Dr. Strauss, who became a member of the MSMA 50-Year Club at the Annual Session on March 20-23, is still on the staffs of Jewish and Barnes Hospitals. After making his patient rounds every morning, he goes to his office. To quote Mr. Martin, "He just likes to work, and that's something, when you're pushing 80."

Dr. John H. Wells, physician and surgeon, was appointed as a new member of the Kansas City Board of Police Commissioners by Gov. Warren E. Hearnes in March. His appointment is for a four-year term. Dr. Wells is chief of the medical staff at the Wheatley-Provident Hospital and a consultant in internal medicine at General Hospital and Medical Center.

Dr. Eugene H. Kelly, Ironton, celebrated his 100th birthday on March 19. Dr. Kelly's medical career began in Odessa. He ended his 60 years' medical practice in Kansas City nine years ago. Dr. Kelly now makes his home at the Home for Aged Baptists in Ironton, where he "makes his rounds" at least once a day visiting all residents. **Mr. Frank Whitsitt** described Dr. Kelly's colorful career in a story entitled "At 100, Doctor Still Serves Fellow Man," which appeared in the *Kansas City Star.*

Dr. John F. Schweiss, St. Louis, has been elected President of the Missouri Society of Anesthesiologists. **Dr. Marshall T. Metzgar,** Columbia, will serve as Secretary-Treasurer for the coming year.

"Medicine has changed a lot in the last 72 years, and practically all for the better." According to **Margaret Olwine** in her recent *Kansas City Times* feature story entitled "Practice of Medicine Looks Good to Doctor After 72 Years," this is the opinion of **Dr. R. N. Crews,** Fulton, who is 97 years old and still carries on an active practice, keeping regular office hours each morning and afternoon and seeing several persons every day. He also makes morning rounds if he has patients in the Callaway County Hospital.



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Volume 66, Number 5—May, 1969

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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J. WILL FLEMING, JR., M.D., *Moberly*

Response to 5-Fluorouracil of Lung Metastases From Bladder and Breast Cancers

Case Reports

The chemotherapeutic agent, 5-fluorouracil (5 FU), has been used with varying success in the treatment of human cancers for 12 years. The author has used this agent with some success during the past few years. Three patients have improved to such an extent, however, that their cases merit reporting.

The first patient was a 74-year-old woman who had a metastasis to the right lung from a grade 4 transitional cell carcinoma of the bladder four years ago. She has been treated with 5-fluorouracil for the past four years. For the past year, there has been no evidence of any metastasis in either lung. She continues to be well and receives weekly treatment.

The other two patients with breast cancer metastatic to the lungs are 59 and 58 years of age and each had a radical mastectomy seven years ago. Both were well until a year and a half and a year ago, respectively, when they became ill. Chest plates on each showed metastases to the lungs. They were started on 5-fluorouracil. Within a few weeks, the metastatic lesions showed marked regression; x-rays taken during the last three months showed roentgen metastases to have disappeared. These patients are now leading normal lives.

Chemistry and Action

5-fluorouracil is a fluorinated pyrimidine belonging to the category of antimetabolites. It is one of a series of such compounds which were first discussed 12 years ago by Duschinsky, Pleven and Heidelberger.[1-2] It was the first of this group of compounds and has been found to be most useful in certain types of malignancies, such as breast, colon and bladder.

The rationale for this drug's therapeutic usefulness is based upon a suggestion that uracil may be utilized preferentially for nucleic acid biosynthesis in some tumors.[1-2] There is evidence that fluorouracil blocks the methylation reaction of deoxyuridylic acid to thymidylic acid. In this way, it interferes with the synthesis of deoxyribonucleic acid (DNA) and inhibits the formation of ribonucleic acid (RNA). Since deoxyribonucleic acid and ribonucleic acid are essential for cell division, the effect of 5-fluorouracil may be to create a thymine deficiency which provokes unbalanced growth and death of the cell. This is most marked in those cells which grow most rapidly and take up the 5-fluorouracil more rapidly. It has been shown that fluorouracil inhibits the growth of some human neoplasms and that its toxic effects are greatest on the cells of the bone marrow, the intestinal mucosa and certain tumors of the breast, rectum and colon. The drug has been shown to cause these tumors to regress and often is found to relieve pain. The effects of deoxyribonucleic acid and ribonucleic acid deprivation are most marked

Three case reports of carcinoma metastatic to the lung. Each patient was treated successfully with 5-fluorouracil. The first patient is symptom-free four years after carcinoma metastatic to the lung from a bladder carcinoma; the second and third patients are symptom-free 12 and 11 months after treatment for lung metastases from breast carcinoma. The history, chemistry and toxic effects of this drug are described, as well as old and new methods for its use. Dr. Fleming is in the private practice of internal medicine.

on those cells which grow rapidly. As might be expected, the toxic effects of 5-fluorouracil are greatest on cells of certain tumors, the bone marrow and the intestinal mucosa.

The chemical synthesis was described by Duschinsky, Pleven and Heidelberger.[2] Lindner and Santilli[3] describe the effect of large doses of 5-fluorouracil on the hematopoietic system by depressing the granulocytes and lymphocytes. This effect was greatest after about seven to nine days. The thrombocytes and erythrocytes also were affected. If the dose is stopped, a complete recovery from the hematologic defects takes place.

Heidelberger and others[4] used 5-fluorouracil-2-C_{14} in a study of the excretion and metabolism of 5-fluorouracil in man. About 12.5% of a single intravenous dose was excreted in the urine within 45 minutes; 91.5% of this was as unchanged 5-fluorouracil. The total urinary excretion of C_{14} during 48 hours was 19.8% of the initial dose. The amount excreted as unchanged 5-fluorouracil fell off rapidly after the first 45 minutes. Urea and a metabolite, alpha-fluorobeta-ureidopropionic acid (FUPA) were excreted in greater quantity after the first 45 minutes.

The incorporation of labeled 5-fluorouracil into a malignant tumor was observed in a patient who was given the drug four hours before surgery. The tumor and the intestinal mucosa showed the greatest concentration of C_{14}. The liver had about 74% of that of the intestinal mucosa. Other tissues had a concentration of less than 50% of that of the intestinal mucosa.

Data from 1,091 cases reported by Ansfeld and others[5] show that the dose has to be about 15 mg/kg given intravenously daily for five days in order to give toxic effects. The reason for this is that the dose must be sufficient to produce some evidence of toxicity if it is to affect the tumor. Tumors most likely to be affected by 5-fluorouracil are carcinoma of the colon, rectum, breast, bladder and ovary. Those less affected are carcinoma of the stomach, cervix, uterus, liver and larynx. Carcinoma of the lung, pancreas and melanoma seem to be affected hardly at all. Acute leukemias and prostatic carcinoma do not appear to be benefited.

Because the effect of this agent is of relatively short duration, courses of therapy have to be repeated at intervals of four to six weeks in order to sustain the antitumor effect. Recent studies[6-7] have successfully been made in which the 5-fluorouracil was given at weekly intervals at the maximally tolerated dose, that is, one which would cause the least serious side effects. This dose may vary from 7.5 mg/kg to 15 mg/kg or more. These newer schedules allow the patient to be ambulatory and an out patient: they result in as much antitumor effect, decrease drug toxicity and almost eliminate drug mortality. This interval of treatment should be maintained indefinitely. The three patients reported in this paper are doing well on single injections weekly.

TOXICITY

The toxic effects associated with the use of 5-fluorouracil have been well documented.[8] Clinical toxicity in humans from 5-fluorouracil is similar to that often seen from other effective chemotherapeutic agents; the most severe side effects are leukopenia, stomatitis and diarrhea. There also can be nausea, thrombocytopenia and alopecia. The author has noticed leukopenia as the most common side effect because it almost always occurs if the dose is adequate. Frequently, patients have had nausea, vomiting and diarrhea. One patient did have alopecia, losing most of her hair, which completely returned in a few months. Stomatitis occasionally will occur, so treatment should be stopped as soon as the first small ulcer develops on the lip. Leukopenia seems to be potentially the most severe toxic effect, usually occurring between the ninth and 14th days after the first injection of 5-fluorouracil. A significant factor, however, is the ability of these patients to recover, and they are able to tolerate repeated identical doses of 5-fluorouracil at four to six week intervals.

DOSAGE AND EFFECTS

Two of the three cases reported received the initial dosage according to the recommended schedule that is 15 mg/kg intravenously daily for five days with the daily dose never to exceed 1 gm (20 ml). If no toxicity is observed after the fifth injection, then half the dose or 7.5 mg/kg is given on the seventh, ninth, 11th and 13th days, unless toxicity occurs before this time. The third patient received 15 mg/kg intravenously, but at weekly rather than daily intervals. This dose was decreased after six weeks.

5-fluorouracil* is a clear liquid and comes in 500 mg (10 ml) vials. It is given intravenously with a small needle, slowly and undiluted.

Therapy is discontinued after the 13th day even if no toxicity is observed. This schedule constitutes a course of therapy. Usually in seven to nine days after the above mentioned dosage, a leukopenia will develop with white blood cell counts from 4,000 down to 3,000. The author usually stops the injections, however, when the white blood cell count is approximately 4,000. Ordinarily, another course of 5-fluorouracil is not given until a month or six weeks later. From the beginning of therapy, white blood cell counts and differentials are always taken before an injection is given and the platelets are either counted or carefully observed. Patients should always be warned about a dermatitis, a diarrhea and, especially, about alopecia; the latter may occur in 10% or more of the patients. The alopecia can be quite shocking to the patient if it is not anticipated. Since it is temporary, special measures are not indicated. Drug toxicity has been reported by Weis and others[8] to be severe enough to cause death in 6% of 144 patients with carcinoma treated with 5-fluorouracil.

Dr. Hall and others[9, 10] reported excellent responses to combination therapy combining 5-fluorouracil with a total dose of x-ray therapy averaging 2,500 roentgens, in six of eight squamous cell carcinomas of the lung, four of five squamous cell carcinomas of the head and neck, one embryonal cell carcinoma of the testes and an adenocarcinoma of the breast.

Evaluation of 5-fluorouracil in the treatment of advanced breast cancer was summarized prior to 1962 by Ivy[11] who reviewed the experience at the Mayo Clinic prior to January, 1962. He found improvement for six months in 50% of 22 patients having progressive carcinoma of the breast. Ahmann, Bisel and Hahn[12] reviewed the records of all patients with breast cancer undergoing treatment with 5-fluorouracil at the Mayo Clinic from January, 1962, to December, 1965. Forty per cent of these patients showed objective regression from two to 36 months; the median was five months. Regression rate was 52% for those who were less than one year post-menopausal. One third of their patients with metastatic liver disease showed effective response in a situation that previously had always been hopeless.

At the Combined Clinical Staff Conference of the National Institute of Health on Breast Cancer,[13] it was stated that in some women less than one year post-menopausal or those with extensive visceral metastases, the hormonal therapies often are not as effective as the immediate use of chemotherapy.

Silva, Smart and Rochlin[14] gave seven different chemotherapeutic agents to 113 patients with disseminated carcinoma of the breast. A positive response was much greater from 5-fluorouracil than from the other six medications.

Thirty-one cases of bladder carcinoma treated with 5-fluorouracil showed that 16 responded favorably.[15]

CASE REPORTS

The following three patients were treated personally. The first was followed throughout most of her entire treatment. The initial series and five others of the 28 were given at the Mayo Clinic. All of the 13 weekly injections were given by the author. The two patients who have the metastatic breast cancer were referred by a physician in a nearby town. After the initial workup and the first course, their regular weekly injections of 5-fluorouracil were given by him.

Case # 1 This 74-year-old woman has been receiving 5-fluorouracil for four years, the longest period of time. Her illness started eight years ago, in 1961, when she began to have metrorrhagia. She was found to have adenocarcinoma of the fundus of the uterus. She had a complete hysterectomy, bilateral salping-oophorectomy and appendectomy. She had a well-differentiated adenocarcinoma of the endometrium with only slight invasion of the myometrium. The patient did fairly well for a year, until 1962, then began to develop a persistent cystitis and gross hematuria which did not clear with medication. She was referred to an urologist who biopsied a lesion on the right bladder wall which was suspicious of malignancy. He resected this portion of the bladder and found it to be transitional cell carcinoma, grade 3. The patient did fairly well for two years, until 1964, consulting the urologist frequently because of recurrent cystitis and pyelitis. In November, 1964, she was

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* Hoffmann-La Roche Inc., Nutley, N. J.

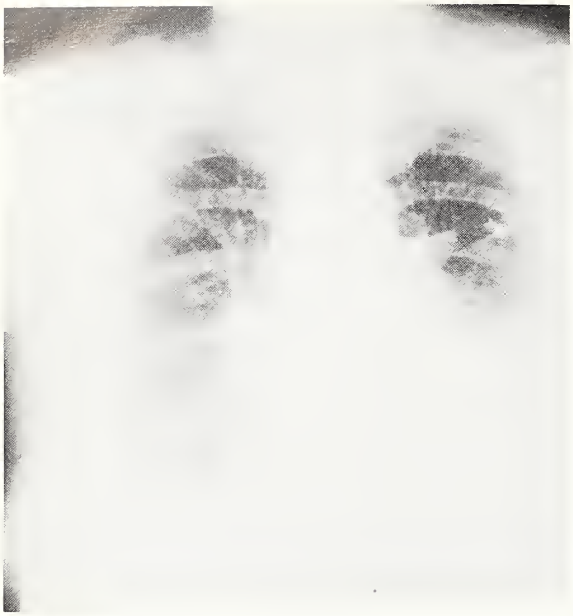

Fig. 1-A Metastatic lesion in right upper lobe. Pleural effusion in left lung probably was due to the generalized edema patient had following cystectomy and bilateral ureterosigmoidostomy (Case # 1, Jan. 13, 1965).

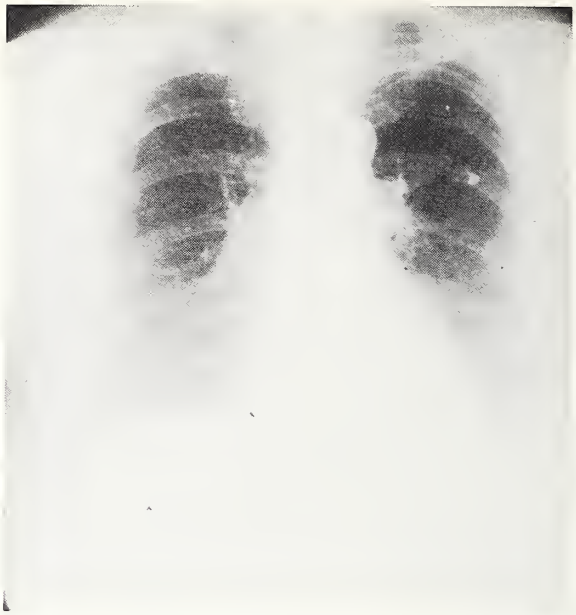

Fig. 1-B The metastatic lesion disappeared four years later (Case # 1, Jan. 2, 1969).

again operated on and a polypoid ulcerating mass was found in the dome of the bladder measuring 5½ cm x 5½ cm x 2 cm. The pathologist reported a grade 4 transitional cell epithelioma. The bladder was removed and a successful bilateral ureterosigmoidostomy was done. There was no gross evidence that the tumor had spread into the pelvis and abdomen, but her chest plate did show a single metastasis in her right upper lobe (Fig. 1-A). The radiologist felt that this most likely was from her bladder carcinoma. She received her first course of 5-fluorouracil two months after this surgery; each course consisted of 800 mg (16 ml) of 5-fluorouracil daily for five days, then 400 mg (8 ml) every other day for four injections if severe leukopenia did not develop. She had a total of 28 series until three months ago. For the last year, the interval between courses has been six weeks rather than four weeks. For the last four months, at the suggestion of Dr. B. F. Bisel, Oncology Section, Mayo Clinic, she has received weekly injections of 500 mg (10 ml) each and has tolerated them very well. The white blood cell count never goes below 5,000. Previously on the long series after the fifth or sixth injection, it usually would drop to 4,000. She has continued to receive this treatment weekly. Her general health continues to be good. Her chest plate in January, 1969, was negative (Fig. 1-B).

Case # 2 This 59-year-old woman had a radical mastectomy for adenocarcinoma of the right breast in July, 1961. She then had good health until the summer of 1967 when she began to have shortness of breath and cough. She responded poorly to treatment. A chest plate in February, 1968, showed a metastatic carcinoma (Fig. 2-A). She was started on a course of 5-fluorouracil and given 900 mg (18 ml) per day for five days followed by 750 mg (15 ml) every other day for four more injections. She tolerated this very well; her leukocyte count stayed above 5,000 and her platelet count above 100,000. She did have some diarrhea, a mild skin rash and an almost complete alopecia. Fig. 2-B shows partial clearing of metastasis six weeks after 5-fluorouracil was started. The patient then was given weekly injections of 900 mg (18 ml) for two months. The dose then was decreased to 500 mg (10 ml) and she continues to receive this dose weekly. She recovered from her alopecia after a few months. She was started on 5 mg of fluoxymesterone* given orally three times daily. This dose was continued for a month. Because of nausea, the dose was decreased to 5 mg twice daily, which she took for six weeks; because of continued nausea, it was decreased to 5 mg once daily, which she was able to continue for five months. This time, because of intolerance, the drug was stopped entirely. Chest plate in February, 1969 (12 months after 5-fluorouracil was started) showed no evidence of metastatic disease (Fig. 2-C).

Case # 3 This 58-year-old woman had a radical mastectomy for adenocarcinoma of the right breast in October, 1961. She did well until late in January, 1968, when she began coughing. The cough

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* Halotestin, The Upjohn Company, Kalamazoo, Mich.

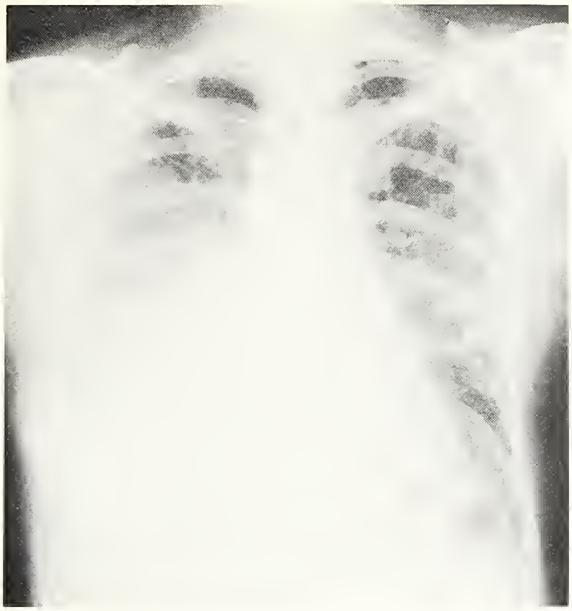

Fig. 2-A Diffuse pulmonary metastases to both lungs, but more prominent on the right lung (Case # 2, Feb. 13, 1968).

was persistent and did not clear up completely under usual therapy. A chest plate on March 4, 1968, showed multiple metastatic cancer more prominent in the right lung (Fig. 3-A). She was started immediately on a regimen of weekly injections of 1,000 mg (20 ml) of 5-fluorouracil. Because her leukocyte count dropped below 5,000 after six weeks, her family physician decreased the dose to 500 mg (10 ml) weekly. This was further decreased until the last two months, when she received 350 mg (7 ml) weekly for three doses, then 300 mg (6 ml) weekly for five doses. At first, she had some diarrhea and a mild skin rash. On the smaller dose, she has had no evidence of toxicity and her chest continues clear. She was given fluoxymesterone 5 mg daily at first; as her tolerance improved, the dose was increased to 5 mg every eight hours for five months. During the past three months, she has taken 5 mg twice daily. Her chest plate in January, 1969, showed no evidence of metastatic disease (Fig. 3-B).

Each of the two patients with breast cancer metastases to the lung had chest plates made by the Mobile Chest Unit eight and nine months after treatment was started. Each was negative.

Summary

This article summarizes three cases of carcinoma metastatic to the lung treated with 5-fluorouracil. One patient with grade 4 transitional cell carcinoma of the bladder metastatic to the lung is symptom-free four years following treatment, and two patients with metastatic carcinoma of the breast to the lung are symptom-free for 12 and 11 months, respectively, following treatment. All three patients are leading normal lives as housewives. The first patient with metastatic breast cancer could not tolerate fluoxymesterone because of nausea, so it was discontinued after seven months. The second patient has continued to receive fluoxymesterone

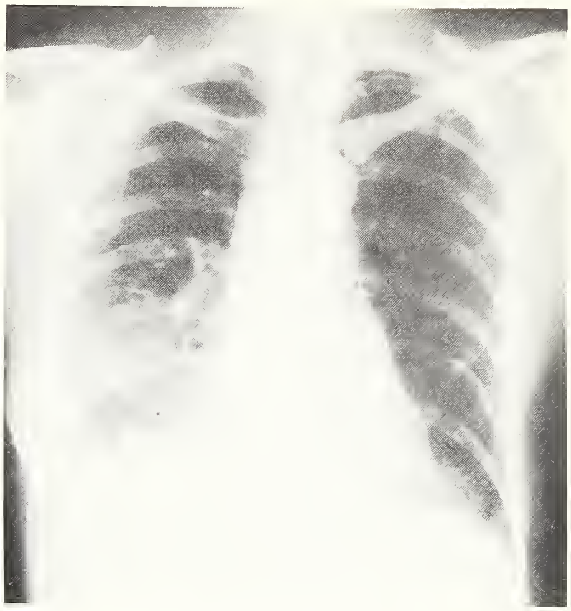

Fig. 2-B Partial clearing of metastases six weeks after 5-fluorouracil was started (Case # 2, March 26, 1968).

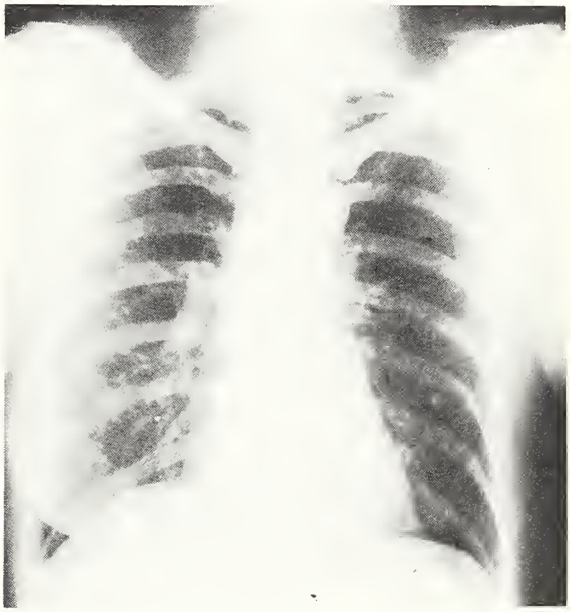

Fig. 2-C Chest is clear one year later (Case # 2, Feb. 3, 1969).

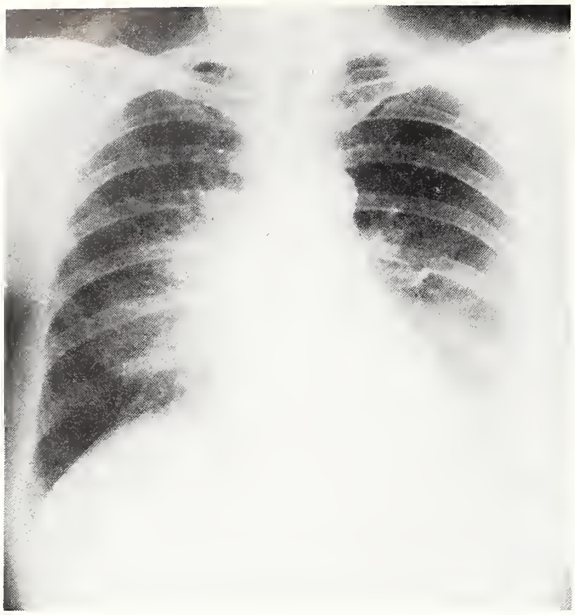

Fig. 3-A Multiple patches of metastatic carcinoma in right lung (Case # 3, March 4, 1968).

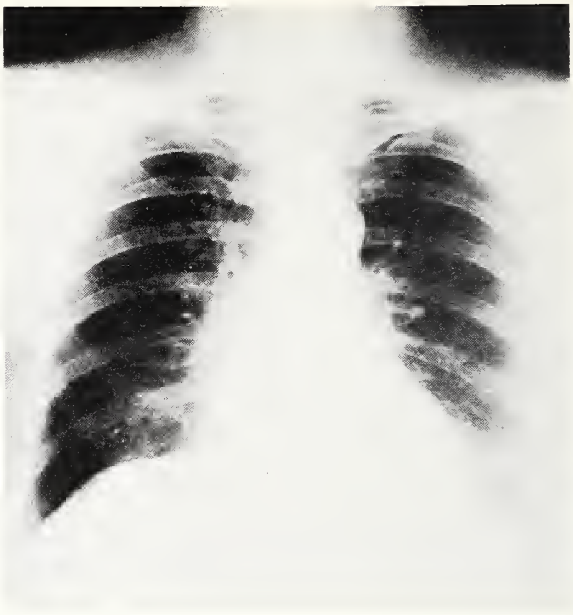

Fig. 3-B Clearing of right lung ten and one-half months after 5-fluorouracil was started (Case # 3, Jan. 16, 1969).

in small doses. The patient not taking this hormone has done as well as the patient who has continued to take it. No other treatment, such as castration, adrenalectomy, hypophysectomy or irradiation, was given for the metastatic lesions. No other chemotherapeutic agent other than 5-fluorouracil was used.

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Psychiatrists Elect Officers

The Missouri Academy of Psychiatry held its Fourth Annual Meeting in St. Louis on March 21. Officers elected for the coming year are E. V. Cowdry, Jr., M.D., St. Louis, President; David Davis, M.D., Columbia, President-Elect; Retus W. Osborn, III, M.D., Farmington, Secretary-Treasurer; and Henry V. Guhleman, M.D., Jefferson City and George J. Lytton, M.D., Kansas City, Councillors.

The Academy will hold its next meeting during the 112th Annual Session of the MSMA in Kansas City on April 3, 1970.

JOHN J. GARRETT, M.D., ***St. Louis***

Some Nutritional Considerations in Patients With Chronic Renal Failure

A Review

The subtle, yet demanding, role assigned to the kidney in human nutrition usually is overlooked until renal function becomes critically inadequate. Our dependence on dietary sources of protein assume the existence of adaptive mechanisms for nitrogen excretion and discriminative processes for the management of the "acid" residues of protein metabolism. Healthy man demonstrates the wide range of adaptability which characterizes these biologic mechanisms and which allow him tenfold variations in daily protein intake without recognizable distortion of protein equilibrium. Man with renal insufficiency, however, exhibits weight loss, weakness and wasting. He is found to be azotemic, anemic and acidotic and gives visible and biochemical evidence of disordered nitrogen balance. The inability of the uremic patient to eliminate the sequelae of his own protein metabolism leaves him the victim of endogenous intoxication.

This review of the nutritional aspects of uremia, intended for clinicians who are involved in the management of patients with chronic renal failure, will present some therapeutic considerations based on current knowledge of both human nutrition and renal physiology.

The Biochemical Task

Briefly stated, human protein equilibrium involves the steps shown in Fig. 1, an oversimplified, but useful representation of protein metabolism:

1. The ingestion of proteins of biologic value, their hydrolysis by intestinal enzymes into less complex peptides and amino acids and the absorption of these.
2. The incorporation of these simpler protein molecules into the dynamic metabolic processes of synthesis, tissue turnover and utilization.
3. The excretion of the residues of these processes, principally in urine.

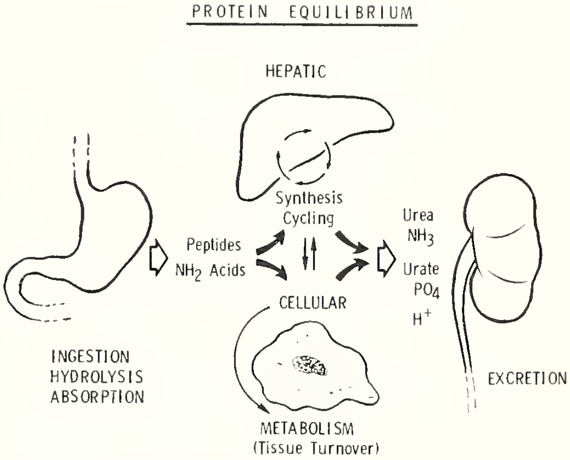

Fig. 1 A schematic representation of protein equilibrium.

Table 1 gives some quantitative insight into the daily excretory load which these metabolic steps imply. A brief reflective comparison of these data with the biochemical findings in the blood of patients with chronic renal insufficiency serves to underline the clinical and physiological elegance of the Greek word, *Uremia*, which literally implies the presence of urinary constituents in blood. If a major portion of the pathophysiology of chronic renal failure and the uremic syndrome center around an inadequate excretory phase of protein metabolism, rational

TABLE 1

PROTEIN EQUILIBRIUM: EXCRETORY PHASE
URINARY CONSTITUENTS

	gms/day
Urea	14.0
Uric acid	0.6
Phosphates	1.0
Sulfates	0.8
Ammonia	0.5

From Todd, W. R. and West, E. S.: Textbook of Biochemistry, Third Edition. New York, Macmillan Co., 1963, p. 1293.

This review of the nutritional aspects of uremia is intended for clinicians who are involved in the management of patients with chronic renal failure. It presents some therapeutic considerations based on current knowledge of both human nutrition and renal physiology and illustrates how carefully-devised management programs will alleviate uremic symptomatology and prolong life for many of these patients. Dr. Garrett is Associate Professor of Medicine and Director, Section of Renal Diseases, Department of Internal Medicine, St. Louis University School of Medicine and St. Louis University Hospital.

therapeutic approaches must either assume the task of excretion or limit the excretory load. Successful renal transplantation and effective hemodialysis assure the former and are increasingly employed as specific therapy for end-stage chronic renal insufficiency. At first glance, it may appear that nutritional considerations are important only in those programs which involve conservative medical management. It should be pointed out, however, that for an individual patient, all of the modes of therapy may be employed and should be regarded as mutually complementary. Four months of sound management, for example, may allow the patient and his physician time to arrange transplantation or chronic dialysis.

The major theme of this review is the development of a nutritional program which will support normal biologic requirements but which also will make the least demand on remaining renal function.

Minimum Protein Requirements

It appears reasonable to assume that the type of patient under consideration would benefit from a diet containing the lowest possible protein. In this manner, daily increments of nitrogen and "acid" would be minimized and, possibly, brought back into the range of the patient's limited excretory mechanisms. Although this goal is achieved in relatively few individuals, the principle is sound, will reduce symptoms and has been shown to prolong the successful conservative management of patients on such programs.

The subject of minimum protein requirements for normal healthy adults is far from clarified and, therefore, information with respect to protein requirements in disease is unsatisfactory. Current knowledge suggests a minimum daily protein intake of 20-30 gm. It is essential that this be "high quality" protein, i.e., that it contain the highest possible content of essential amino acids for each gram of dietary protein. Patients with chronic renal failure should be instructed in the concept of "high quality" as contrasted with "low quality" protein. In practice, this idea can be expressed by excluding all vegetable and cereal proteins from the diet and concentrating on those proteins of high biologic value, i.e., comparatively rich in essential amino acids and derived from egg, beef and fish sources.

Although the concept of protein restriction for patients with chronic nephritis is not an innovation, two European physicians particularly interested in the dietary management of patients with chronic renal disease, Giordano and Giovanetti, have recently stimulated an objective and quantitative evaluation of diets of unusually low protein content.[1, 2] The original Giovanetti diet consisted of 2000 to 3000 calories in a fat and carbohydrate rich program with selected "low nitrogen" fruits and vegetables. A specially prepared wheat starch was used to provide some variety in the diet. Protein was supplied only in the form of powdered essential amino acids and eggs. Various modifications of the Giordano and Giovanetti diet were developed in a number of centers in Europe and in North America. In many instances, the recorded experiences were striking, and there is little doubt that selected individuals, those with a normal urine volume who are edema free and who have a significant remnant of residual renal function, i.e., creatinine clearance levels of 6-10 ml/min, will experience a dramatic reversal of uremic symptomatology when rigidly adhering to this necessarily austere diet.

An American version of this program, called a "Selected Protein Diet," was developed by Snyder and Merrill.[3] A sample menu, similar to their program is shown in Fig. 2. In our view, this approach is a useful adjunct to the conservative therapy of chronic renal failure. In some situations, it may be life saving. The limitations of the plan seems to be its relativcly short-term value and its eventual termination in a sudden and lethal syndrome not unlike acute renal failure.[4]

In several specific clinical settings, rigid protein restriction seems unwise and probably con-

SAMPLE MENU

2000-3000 Calories

Breakfast	*Lunch*	*Dinner*
Juice	1 Egg (any style)	Fruits
Apple	2 Vegetables	Special bread*
Tomato	Tossed salad	Honey
Vegetable	Special bread*	Sherbet
Cereals	Tea or milk	
Corn or rice products only		
Special bread*		
Butter		
Jelly		

Vegetables Allowed:† Asparagus, Beets, Cabbage, Chard, Carrots, Cucumbers, Eggplant, Peppers, Lettuce, Mushrooms, Okra, Onions, Parsnips, Potato, Pumpkin, Radishes, Rice, Squash, Turnips

Fruits Allowed:† Blueberries, Boysenberries, Grapefruit, Grapes, Pears, Peaches, Pineapple, Plums, Rhubarb, Strawberries

Supplements: Multivitamins, Methionine 0.5 gm/day

* "Special bread" made from processed low-protein flour.

† Patients with hyperkalemia will require further restriction of fruits and vegetables.

Fig. 2 Selected protein diet for management of patients with chronic renal insufficiency.

traindicated. Peritoneal dialyses, for example, are always associated with protein losses and these probably range between 15 gm and 30 gm for each 30-cycle dialysis. Patients who are on programs involving repeated peritoneal dialysis will obviously require consideration of this protein loss. Similar attention should be given to patients who have had the nephrotic syndrome with massive urinary protein losses prior to the onset of renal failure and to patients with active inflammatory or infectious disease.

The measurement of 24-hour urinary protein excretion and serum protein levels will provide useful insight into protein economy in those cases where protein losses may have occurred.

INTERMEDIARY METABOLISM

Although little is known about intermediary metabolism in uremia, basic knowledge is accumulating at an accelerated rate. The prolonged survival which accompanies hemodialysis and the complete reversal of the uremic state which follows successful transplantation have provided opportunity for study of the complex metabolic disturbances which accompany uremia. An intriguing and potentially useful aspect of severe protein restriction, for example, has been the demonstration that patients with chronic renal failure may utilize the nitrogen of endogenous urea and ammonia for the synthesis of more complex proteins such as serum albumin.[5]

Perhaps the most thoroughly evaluated metabolic abnormality is the hyperglycemia which accompanies many cases of chronic renal failure which may mimic diabetes mellitus and which has been appropriately but somewhat ponderously labeled "azotemic pseudodiabetes." Extensive studies of this carbohydrate defect seem to imply a peripheral problem in glucose utilization, perhaps at the cellular level.[6] The mild elevations of blood sugar are of significance only in that they may lead to the mistaken diagnosis of true diabetes mellitus. Neither insulin, hypoglycemic agents nor dietary restrictions are required for the management of this abnormality.

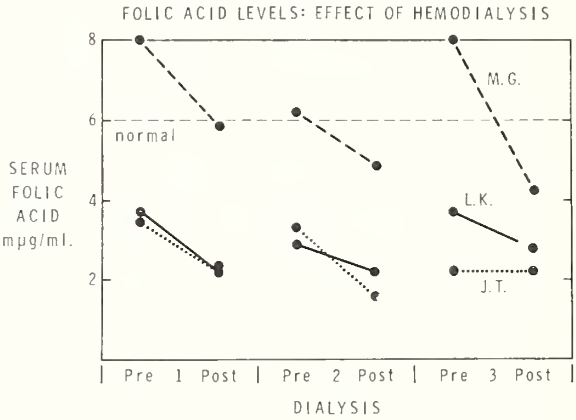

Fig. 3 Folic acid levels in patients with chronic renal insufficiency before and after hemodialysis.

We have routinely added water soluble vitamins of the Vitamin B group to the therapeutic program for patients on chronic hemodialysis. The rationale for this approach appears in the preliminary data shown in Fig. 3.[7] This evidence supports the concept that water soluble vitamins, particularly folic acid, thiamine, biotin, pyridoxine and ascorbic acid, are dialyzable and that prolonged hemodialysis and, perhaps, intermittent peritoneal dialysis carry the threat of vitamin deficiency. Other evidence with relation to folate, especially the demonstration of a megaloblastic anemia which responds to therapeutic doses of folic acid, bears out this impression. Vitamin stores, vitamin levels, and vitamin requirements in untreated chronic renal insufficiency are not well understood and a consistent vitamin deficiency pattern has not been observed in untreated uremia. Peripheral neuropathy, a troublesome complication of chronic renal failure, simulates a nutritional polyneuropathy but does not respond to any apparent vitamin program. Individual nutritional status, the role of uremic nausea and vomiting and, perhaps, the type of preexisting renal disease play major roles in the over-all nutritional picture associated with uremia.

SALT AND WATER

A comprehensive review of salt and water balance in patients with chronic renal disease is beyond the plan of this review. However, several practical aspects are worthy of emphasis. The majority of patients with chronic renal failure require dietary salt restriction. Hypertension, retinopathy, cardiac failure and edema are common complications in this group of patients and relate significantly to the level of salt intake. The occasional measurement of 24-hour urinary sodium excretion will provide the physician with quantitative information related to residual homeostatic mechanisms for sodium balance. Daily sodium intake should never exceed the patient's 24-hour urinary sodium excretion. The majority of these patients should be ingesting 2 gm or less of dietary salt each day. A dramatic exception to this rule is the patient with renal salt wasting. This unique individual, who is dry skinned, edema free and comparatively hypotensive, frequently gives a clear history of salt craving. A serum sodium level of less than 130 mEq/L is usually seen. These patients are often the victims of well-meaning but injudicious salt restriction and, when identified, they should be encouraged and educated to ingest an amount of sodium chloride which corrects the deficit in extracellular fluid sodium concentration. A significant and gratifying improvement in symptoms, plasma volume, renal blood flow and residual renal function may occur.

Although water will never be regarded as a nutrient, most dietary programs for patients with uremia must give serious and precise consideration to the amount of water (the sum of all fluids) ingested daily. A 24-hour urine volume of less than 800 ml imposes severe restrictions on conservative programs. Oliguric patients need careful instruction in the water content of foods. If the patient with chronic renal failure has a high daily urine volume (some will exceed 3 liters daily), his own thirst mechanisms will usually dictate an adequate fluid intake and fluid restriction is not advisable.

CALCIUM AND MAGNESIUM

Hypocalcemia and modest hypermagnesemia are characteristic of chronic renal failure. Unless serious bone disease or recurrent convulsions are present, a mild depression of serum calcium can be ignored. The calcium and bone disturbances which accompany uremia are extremely complex and may be related in part to impaired intestinal absorption of dietary calcium. This absorptive defect responds to large doses of Vitamin D and supplemental calcium. At present, such measures are not a regular part of the conservative approach to the problem of chronic renal failure.

It is doubtful that hypermagnesemia contributes to the symptomatology usually associated with uremia. Magnesium-containing antacids sometimes are inadvertently prescribed for these patients and are best excluded from any therapeutic program for chronic renal failure.

SUMMARY

Any organized plan for the management of patients with chronic renal failure requires precise consideration of individual protein, salt and water requirements. Carefully devised programs will alleviate uremic symptomatology and prolong life for many of these patients.

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Bronchial Adenoma: Treatment by Combined Endotracheal and Transthoracic Resection

Case Report

Although most bronchial adenomas are now treated by thoracotomy and resection, the authors believe there is still a place for preliminary endoscopic resection of tumor in patients who are too old or too ill to tolerate thoracotomy or who have tumor involving the trachea or carina. This case report describes their treatment of a patient with an unusual bronchial adenoma by a combination of endoscopic cauterization with thoracotomy and resection. The authors are from the Departments of Surgery and Medicine, St. Louis University School of Medicine.

Bronchial adenomas are unusual, but not rare tumors. They have been found in patients of all age groups from childhood to the ninth decade of life. Such tumors usually are best treated by surgical resection, but, occasional patients have been treated by endoscopic cauterization because of the anatomic location of the tumor or because of the patient's inability to tolerate thoracotomy and resection. We have recently treated an unusual bronchial adenoma by a combination of endoscopic cauterization with thoracotomy and resection.

Case Report

A 27-year-old woman was seen in our emergency room on Jan. 28, 1968 several hours after she had been awakened by severe posterior, midthoracic chest pain accentuated by inspiration. On the previous day, she had coughed up approximately 60 cc of bright red blood. For several years, she had had a chronic cough with occasional wheezing which motivated her to seek medical attention four months before the present episode; physical examination and roentgenogram of the chest were normal at that time.

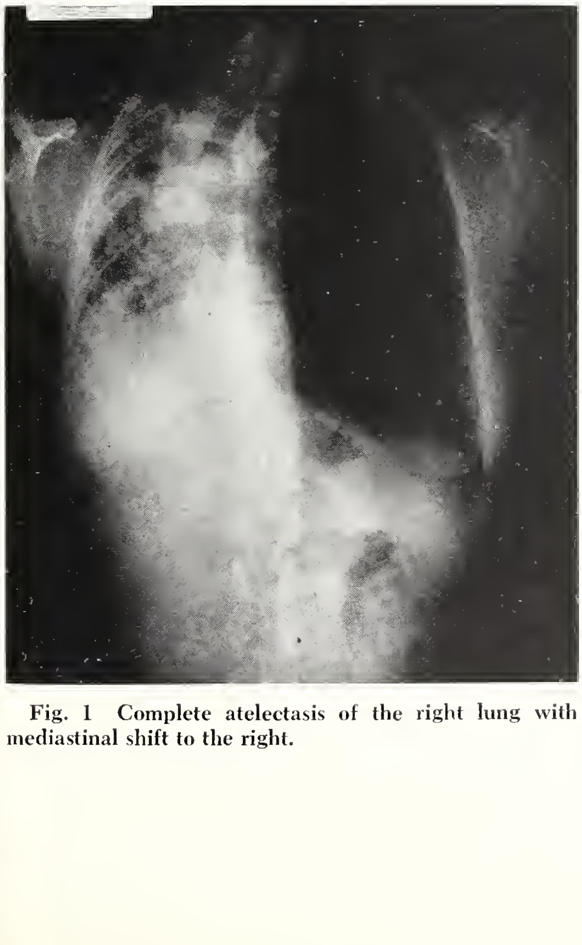

Fig. 1 Complete atelectasis of the right lung with mediastinal shift to the right.

Examination showed no dyspnea or cyanosis, but there were signs of atelectasis of the right lung. Roentgenograms showed complete opacification of the right hemithorax with deviation of the mediastinum towards the right (Fig. 1).

The patient was given analgesics and antibiotics. Culture of the sputum demonstrated coagulase-positive Staphylococcus aureus. Her temperature reached 102.5F (39.2C) daily. Bronchoscopy was performed on January 30. The trachea was deviated to the right; a smooth, red, meaty tumor mass arose from the vicinity of the carina. This mass entirely occluded the right main bronchus and projected into the medial portion of the left main bronchus. Biopsy demonstrated an infiltrating carcinoid-type bronchial adenoma (Fig. 2). Laminograms of the chest confirmed the broncho-

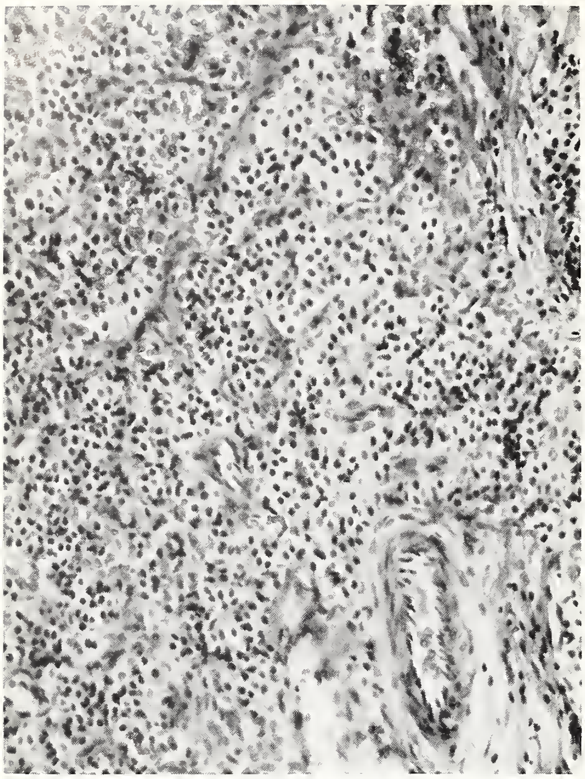

Fig. 2 Typical carcinoid pattern of the tumor. (X450)

scopic impression of the extent of the mass (Fig. 3).

Because of the carinal involvement, thoracotomy and resection of the tumor seemed quite hazardous. On February 6, a partial resection was performed through the bronchoscope using the biopsy forceps and electrocautery. The portion of tumor projecting into the left main bronchus was resected; this showed the same histologic pattern as the biopsy. Bronchoscopic resection was repeated on February 20, removing the tumor from the right main bronchus. After this resection, the tumor was seen to arise from the lateral wall of the right main bronchus. It had grown over the carina without involving the mucosa of either the carina or the left main bronchus. From these findings, the tumor appeared resectable by a right pneumonectomy. These findings were verified at a bronchoscopic examination on March 4.

On March 11, 1968, right thoracotomy was performed. The right lung was pale and yellowish. There was no extension of tumor outside of the bronchial system. Several carinal lymph nodes were biopsied and did not contain metastases. A right pneumonectomy was performed excising a portion of the trachea with the right main bronchus. The margin of resection was narrow but satisfactorily free of tumor grossly (Fig. 4) and microscopical-

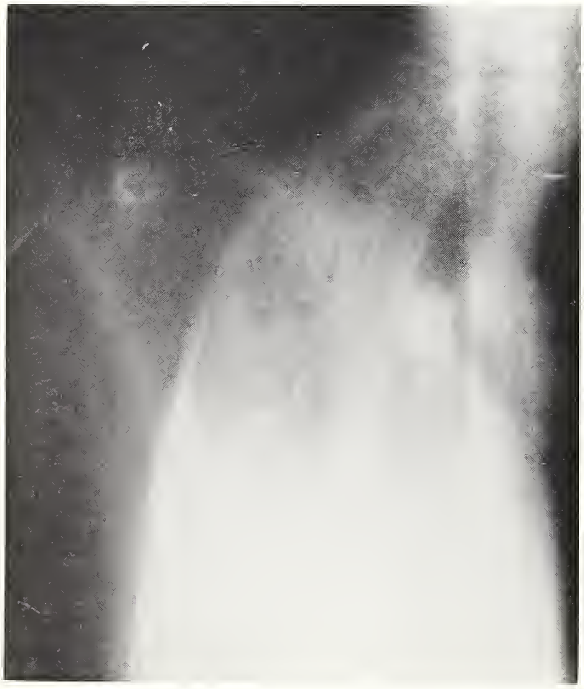

Fig. 3 Rounded tumor mass at the carina, occluding the right main bronchus and protruding into the left main bronchus.

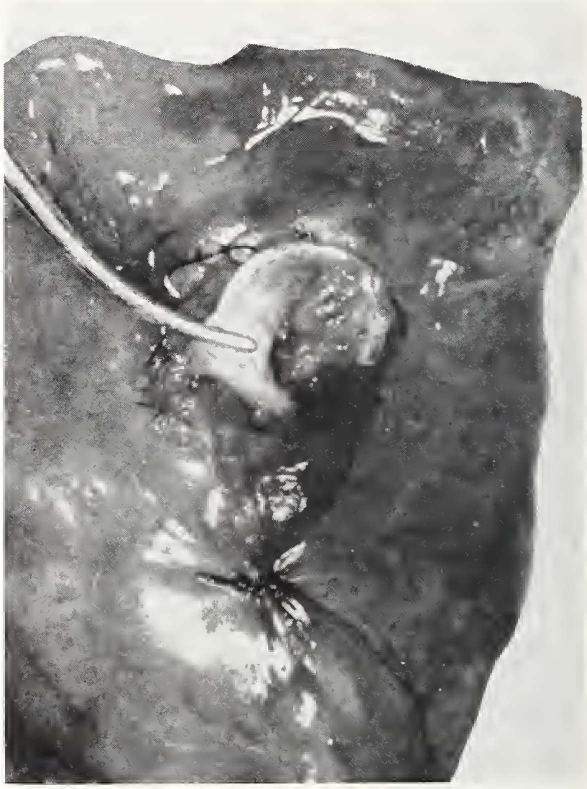

Fig. 4 Opened right main bronchus with the tumor near the line of resection.

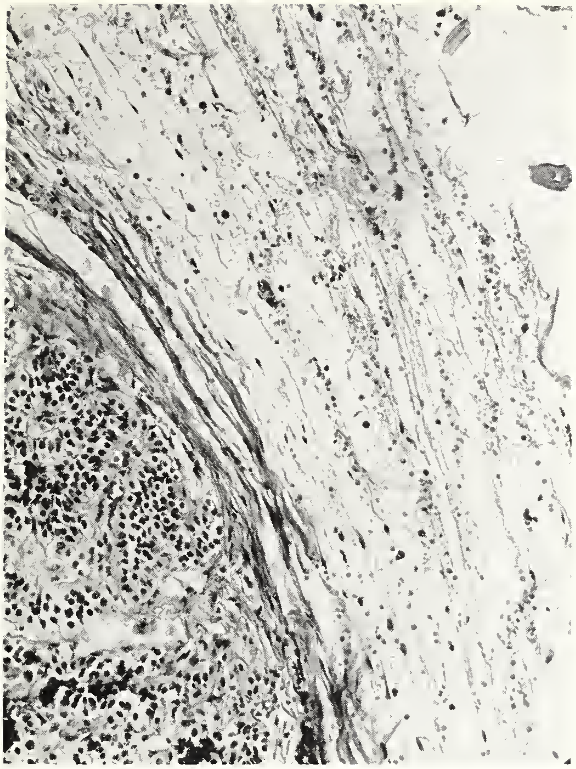

Fig. 5 Tumor extends almost to the outer wall of the bronchus in this section. (X450)

ly. Subsequent pathological examination showed no nodal metastases. In one area away from the line of resection, the tumor invaded into but not through the bronchial adventitia (Fig. 5). The patient's postoperative course was uneventful and she has continued to do well. A bronchoscopic examination on July 1, 1968 showed no evidence of tumor.

DISCUSSION

Bronchial adenomas are not common. They are usually slow-growing, locally-invasive tumors that often invade and destroy cartilage, but they usually do not metastasize. However, these tumors may be malignant. The criterion must be the presence of distant metastases since, histologically, the benign and malignant tumors are indistinguishable. Approximately 90% of such adenomas are of the carcinoid type. Most of the remainder are cylindromas, with a few muco-epidermoid tumors.

Bronchial adenomas tend to occur in major bronchi where they may be entirely within the bronchial lumen, partially within and partially without or mostly outside of the bronchus. Symptoms usually are due to bronchial obstruction or to ulceration over the tumor with resultant hemoptysis. Because these tumors grow so slowly, there may be vague symptoms for long periods before there are findings on chest roentgenograms. Since these tumors usually occur in the larger bronchi, most can be seen at bronchoscopy.[1, 2]

Formerly, there was widespread acceptance of endoscopic resection and coagulation of these tumors as definitive therapy. However, at present, most such tumors are treated by thoracotomy and resection, usually by lobectomy or pneumonectomy. Such open resection removes the extrabronchial portion of the tumor as well as the portion that projects into the lumen. Thoracotomy also permits an accurate assessment of possible metastases. In general, the results of thoracotomy and resection are excellent. To many, such resection has become the only acceptable form of therapy. However, we believe that there is still a place for endoscopic resection of tumor in those patients who are too old or too ill to tolerate thoracotomy and in patients with tumor involving the trachea or carina.

Putney[3] reported one patient who was treated by endoscopic resection during a period of 13 years. In the series of 61 cases of bronchial adenoma reported by Markel and his associates,[2] three patients were treated by endoscopic resection. One died of unknown cause eight years after treatment. Recurrent tumor had been noted three years after the original endoscopic resection, but the patient steadfastly declined further therapy. The other two patients in Markel's series were well at 15 and 25 years, although the latter patient had residual tumor.

In our patient, initial thoracotomy and resection would have been associated with a high risk had we attempted to resect the carina. Preliminary, partial resection through the bronchoscope permitted a more accurate diagnosis and, hence, a lesser and safer resection. We believe that occasional patients will benefit from preliminary endoscopic resection with subsequent thoracotomy and open resection.

SUMMARY

A 27-year-old woman with cough, wheezing and hemoptysis was found to have a bronchial adenoma that seemed to arise from the carina, obstructing the entire right main bronchus and a portion of the left main bronchus. Endoscopic resection of part of the mass showed its true origin to be within the right main bronchus. This permitted a safer resection.

(Continued on page 361)

Special X-ray Exhibit

Inflammatory Colon Stenoses: Continued

M. WENDELL DIETZ, M.D., ***Springfield****

A PREVIOUS ANALYSIS in this section of MISSOURI MEDICINE in January, 1969, considered the clinical and roentgen characteristics of stenotic sequela of several statistically notable diseases. *Ulcerative colitis* was represented by three enigmatic stenotic lesions, each secondary to a distinctly different phase in the course of this chronic idiopathic disease: benign and carcinomatous strictures and the stenosis resulting from a postperforative pericolonic abscess. A *diverticulitis* series featured problematic stenosis due to an infrequent but particularly elusive diagnostic complex: diverticulitis without x-ray evidence of diverticulosis. Proved examples of diverticular and carcinomatous stenosis, as well as the stricture of pericolic abscess, were illustrated.

This concluding chapter deals with four additional varieties of inflammatory stenosis of the colon. Not only are these disorders more uncommon, they also are more challenging from the viewpoint of differential diagnosis. As emphasized in the essay on ulcerative colitis and diverticulitis, recognition of the underlying abnormality ordinarily facilitates investigation of a roentgenologically nonspecific complication. Evaluation of the first three of these stenotic lesions indicates benign but nonspecific features. In each case, however, either *concomitant x-ray signs* or the *clinical perspective* guides the diagnostician to the correct diagnosis. *Biopsy studies* only could establish the etiology of the carcinoma-like stenotic oddity reported in Case IV.

CASE I. TUBERCULOUS ENTEROCOLITIS

A 24-year-old married woman of American Indian extraction was referred for roentgen examination of the colon. The patient initially sought medical consultation because of left chest pain and asthenia. She admitted, however, that during the prior three months she had daily passed a loose, watery stool upon arising. She had lived on an Indian reservation until the age of 14. Two years earlier, the patient had had frequent contact with her mother-in-law, who was then undergoing treatment for pulmonary tuberculosis. She had no other complaints nor pertinent prior medical history. Proctoscopy and chest roentgenograms were negative.

Barium enema spot films readily revealed a persistent inflammatory type stenosis of the distal transverse colon (Fig. 1). This nonspecific lesion was not obstructing the bowel, its edges were somewhat tapered and its margins were quite irregular. Adjacent bowel was uninvolved. These projections also showed an accompanying marginal deformity of the cecum and ascending colon. Mucosal distortions with hypertrophy and coarsening were overshadowed by profound spasm with cephalad retraction of a constricted cecum. A postevacuation view (Fig. 2) indicated involvement of the distal ileum with a distorted ileocecal valve occupying the entire lumen of the shortened cecum. The broad-based ileum protruded as a spearhead into the contracted cecum (Fleischner's sign). Barium opacification of the normal proximal ileum and the hepatic flexure contrasted with a markedly spastic ileocecum (Stierlin's sign). Correlation of these latter pathognomonic manifestations of ileocecal tuberculosis accounted for the skip lesion within the transverse colon. Tuberculous complications not demonstrated include bowel obstruction, fistula formation, the string sign and intestinal ulcerations.

Biopsy studies of the intestinal lesions, as well as of the appendix, lymph nodes and omentum, disclosed granulomatous inflammation consistent with tuberculous colitis. Acid-fast stains confirmed the presence of Mycobacterium tuberculosis.

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* Dr. Dietz is Director, Department of Diagnostic Radiology, Burge-Protestant Hospital, and Clinical Associate Professor of Radiology, University of Missouri-Columbia School of Medicine.

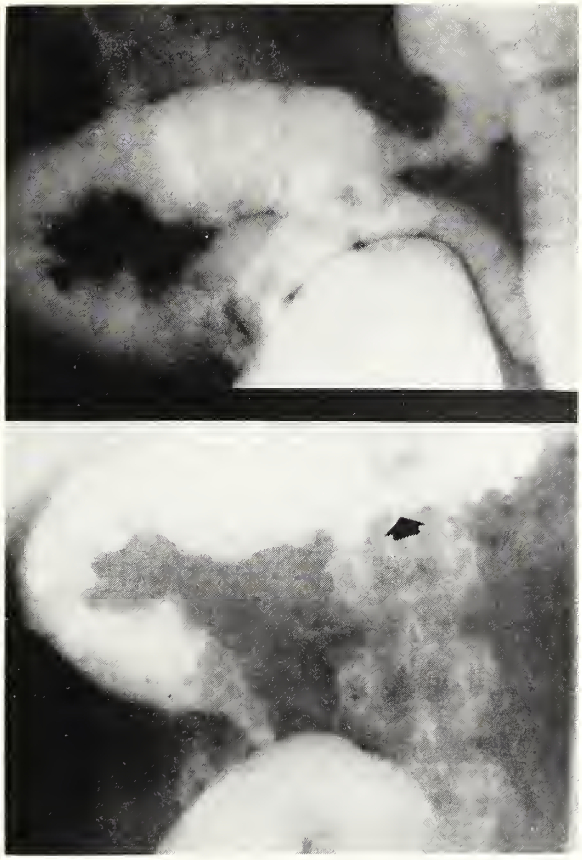

Fig. 1 *Ileocolic Tuberculosis.* Barium enema spot films.

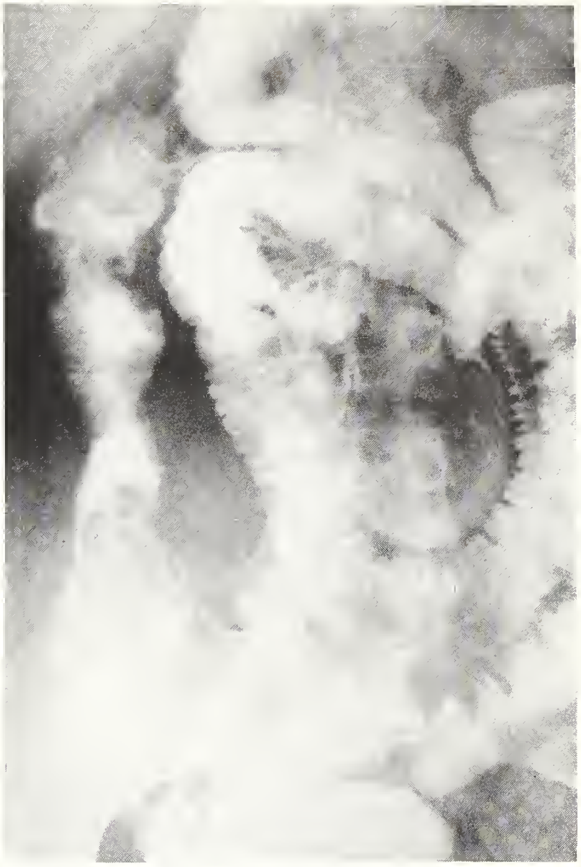

Fig. 2 *Ileocolic Tuberculosis.* Postevacuation projection.

Case II. Granulomatous Enterocolitis

A 44-year-old woman consulted an abdominal surgeon for a right lower abdominal mass of which the patient had been conscious for at least one year. The mass was not particularly tender to palpation and was not accompanied by any other complaint or physical finding. The patient rejected the recommendation of hospitalization for x-ray and laboratory investigation and was not seen again during the ensuing three months. She next reported the onset of postprandial abdominal cramping and agreed to hospital admission.

Barium colon studies revealed multiple constrictions of the ileum and colon (Fig. 3). An inflammatory type stenosis of the proximal transverse colon maintained a fixed relationship to an obstructive stricture of the terminal ileum. The colon narrowing was basically a nonspecific process; the coexistent ileal stricture was characteristic of regional ileitis. Resection of the diseased bowel confirmed the presence of stenosing granulomatous ileocolitis. A tiny fistulous tract extended from the markedly thickened, ulcerated terminal ileum to enter the lumen of the skip lesion in the transverse colon. The intervening large bowel was negative.

Marked variation in symptom patterns in regional ileitis has been emphasized frequently. Clinical configurations include simulation of a host of intra-abdominal and pelvic disorders. Nevertheless, that such a long-standing, advanced disease was manifest by the solitary sign of a mass is indeed noteworthy.

In addition to anorectal complications (fistulas and abscesses), internal fistulas extending into another segment of small bowell, colon or a neighboring viscus are rather common sequelae of bowel perforation in regional enteritis. (Very rarely, free perforation does present as an acute surgical emergency.) Fistulation often causes more than one tract giving rise to an adhesive peritonitis. A palpable tender mass frequently is due to formation of a suppurative granuloma. In contrast to idiopathic ulcerative colitis, diarrhea and bleeding are less pronounced while stricture formation and intra-abdominal fistulas are more common.

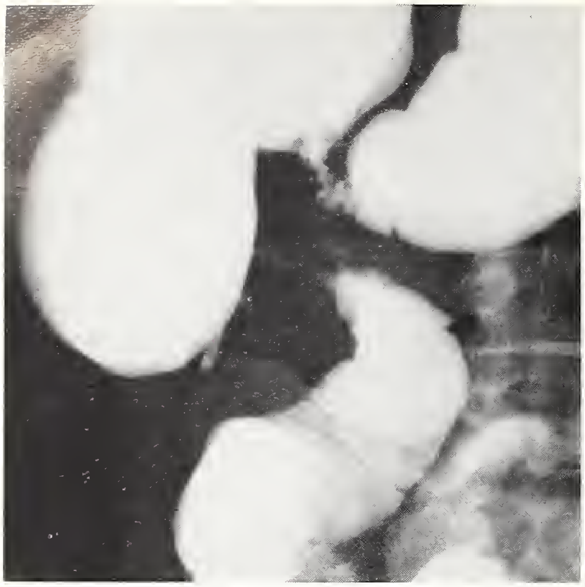

Fig. 3 *Granulomatous Ileocolitis*

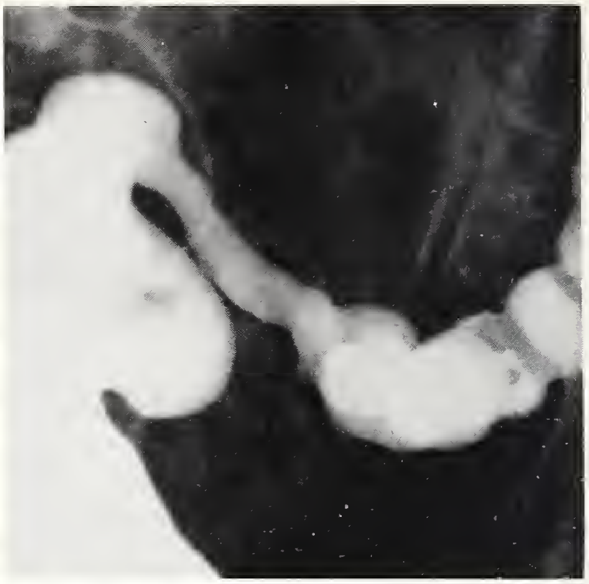

Fig. 4 *Postradiation Colitis*

Case III. Postradiation Stricture

An 80-year-old woman was hospitalized because of a history of progressively severe constipation, abdominal distension with cramping pain and decreased size of stools. Fifteen years earlier at another institution, this patient had undergone two radium applications and a course of external radiotherapy for carcinoma of the uterine cervix.

A barium enema study revealed a lengthy nondistensible constriction of the midsigmoid colon (Fig. 4). The narrowing caused proximal colon dilatation with fecal stasis. Unlike a primary carcinoma with abrupt transition to normal bowel, the edges of this stenosis were gradually tapered. Also, the length of the involved segment exceeded the usual dimensions of colon adenocarcinoma. Haustra and mucosal forms were obliterated within the fixed tubular constriction. No intraluminal defect was observed.

Operation revealed that the injured intestine was thickened and fibrotic, resembling a rubber hose. Numerous adhesions were present; the sigmoid was firmly adherent to the posterior uterine wall. Excision of the stenotic lesion resulted in prompt disappearance of symptoms. Neither the clinical, roentgen nor operative findings indicated recurrence of the primary cervical carcinoma.

Several features of this case typify actinic colitis. In large series, obstructive bowel symptoms are the initial complaint; the sigmoid is the most frequently involved colon segment; cervical carcinoma exceeds other pelvic neoplasms as the primary disease; two radiation modalities have been most often employed.

In contrast to the majority of cases, the interval between treatment and onset of symptoms was unusually long in this patient. Absence of either preradiotherapy inflammatory pelvic disease or operative procedures causing adhesions is noteworthy, but far from unusual.

Case IV. Intestinal Histoplasmosis

A 44-year-old construction supervisor was hospitalized for investigation of cramping abdominal pain with nausea and vomiting. Review of records of an initial hospitalization ten months earlier indicated that this first admission followed the onset of right lower quadrant pain with watery diarrhea and nausea. Physical examination disclosed a tender abdominal mass. A barium enema study readily demonstrated a ragged circumferential filling defect of nonobstructive type at the ileocolic junctional level. The colon deformity was considered typical of an annular adenocarcinoma. At laparotomy, the tumor-bearing bowel was resected and a primary ileotransverse colostomy was carried out. Pathologic examination of the operative specimen showed an ulcerated granulomatous process involving the full thickness of the bowel wall. Methenamine silver stains revealed small yeast forms scattered throughout bowel and nodal granulomas. These organisms were considered compatible morphologically with *Histoplasma capsulatum*. The patient recovered satisfactorily from the operation and was dismissed on the tenth hospital day.

Roentgen examination of the postoperative colon at readmission now revealed a predominately annular and ulcerative zone of involvement within the distal transverse colon (Fig. 5). Proximally, the bowel was moderately dilated. Despite the history of cecal histoplasmosis simulating a primary carcinoma, the roentgen characteristics of this second bowel lesion remained strongly indicative of a carcinomatous stricture. The operative findings once more suggested the probability of a bowel malignancy.

Histologically, however, the lesion was identical to the original cecal specimen. Histoplasmosis was again proved to be the etiologic agent.

Colonic histoplasmosis has rarely been described. Nevertheless, individual case reports have demonstrated conclusively that this granulomatous process may be roentgenologically indistinguishable from bowel carcinoma.[1]

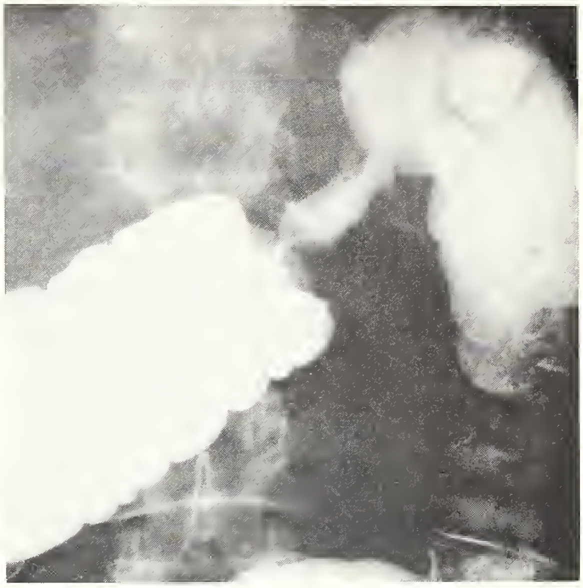

Fig. 5 *Intestinal Histoplasmosis*

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Bronchial Adenoma

(Continued from page 357)

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Dr. Thomas E. Ferrell to Head Surgical Society

The Missouri State Surgical Society held its annual business meeting at the University Club in St. Louis on March 21.

Thomas E. Ferrell, Jr., M.D., Springfield, was elected President for the coming year. Other newly-elected officers are Cyril J. Costello, M.D., St. Louis, President-Elect; John A. Griffith, Jr., M.D., Kansas City, Vice-President; and Howard E. Linville, M.D., Kansas City, Secretary-Treasurer.

BURL M. DILLARD, M.D. *and*
JAMES R. CRISCIONE, M.D., ***St. Louis***

The St. Louis Cancer Detection Clinic

Report of the First Eight Months

The St. Louis Cancer Detection Clinic was established at the St. Louis City Hospital on Nov. 10, 1966 under the auspices of the Institute of Medical Education and Research with financial support from the United States Public Health Service, Cancer Control Division for medically indigent patients.

The objective of the St. Louis Cancer Detection Clinic is to teach proper cancer detection methods to medical students, interns, assistant residents, residents and chief residents in training in surgery, obstetrics, gynecology and all other specialties at this hospital.

Techniques

Each patient completes a five-page questionnaire in regard to his or her past history, family history, previous hospitalizations and previous medical treatment with particular emphasis on family history in regard to cancer or any known etiological factors contributing to cancer. Subsequent to this procedure, each patient is given a complete physical examination which includes the head, neck, throat, breasts, chest, abdomen, pelvis, extremities and integumentary system. Each patient has a pelvic examination with a Pap smear. All patients receive a sigmoidoscopic and stool guaiac examination. After the complete physical examination, each patient receives a chest film, complete blood count and urinalysis. All female patients more than 40 years of age have bilateral mammograms. Oral cytology recently has been added for each patient as a routine procedure. Each patient is notified, along with a notification to his physician or established clinic, within two weeks of the results of the entire series of tests.

Results

From Nov. 10, 1966 through June 30, 1967, a period of eight months, a total of 1,117 patients were seen and had complete cancer detection screening tests. There were 180 positive results in this group, as shown in Table 1. Of the 180 positive results, 17 have proven carcinoma (Table 2) and 113 were still at risk on Sept. 1, 1967 due to failure to return for biopsies and to our transient population (Table 3). Of the definitive cases, 17 of 67 gives a rate of 25.39%. A projected total of 46 carcinomas were detected

TABLE 1
TUMORS DETECTED IN 1,117 SCREENED PATIENTS

Skin	22
Oral Cavity	2
Head	3
Thyroid	13
Breast	16
Chest	36
Stomach	6
Colon and Rectum	31
Vagina	2
Adnexa	1
Cervix	5
Uterus	8
Ovary	4
Prostate	9
Testes	2
Miscellaneous	20
Total	180

TABLE 2
PROVEN CARCINOMAS AND SITES

Skin	2
Oral Cavity	2
Breast	2
Colon	2
Cervix	4
Uterus	1
Kidney	1
Prostate	2
Ovary	1
Total	17

TABLE 3

TOTAL NUMBER OF PATIENTS SEEN WITH TUMORS BEING DETECTED BUT WHO HAVE NOT BEEN BIOPSIED AT THIS TIME AND ARE CLASSIFIED AT RISK

Skin	13
Head and Neck	3
Thyroid	9
Breast	7
Chest	26
Stomach	3
Colon and Rectum	21
Cervix	4
Uterus	4
Prostate	6
Testes	2
Miscellaneous	15
Total	113

Note: At a positive yield rate of 25.39%, probably 29 of these patients have a carcinoma.

among the 1,117 screening tests for a detection rate of 4.1%, which is similar to other cancer detection clinics' rate of yield. Of the 17 carcinomas that have been proven, all were less than two centimeters in size and the cancers of the cervix uteri were stage zero or stage one League of Nations. One carcinoma of the cervix was LON Stage II. The numbers are too small for statistical conclusion. Other investigators' work and results, mainly that of Gilbersten[1] from the University of Minnesota Cancer Detection Clinic, has proven that early detection of small carcinomas result in better survival rates.

DISCUSSION

There is growing evidence that cancer detection clinics will improve the survival rate in four types of carcinoma: (1) oral, (2) breast, (3) colon and rectal and (4) stomach. It definitely has been proven of benefit in early detection and survival rate of carcinoma of the cervix. Gilbersten,[1] in a review of the work from the University of Minnesota Cancer Detection Clinic, reported 53 asymptomatic carcinomas of the breast detected with 75% of these patients having no positive axillary nodes. Of these 53 patients, there was an 88% overall survival rate versus a 50% overall survival rate of symptomatic patients treated at the University of Minnesota. He also reported that 66% of the patients could not feel the breast tumors that were detected by the examining physicians. Egan,[2] by the form of mammography, has shown a method of detecting carcinoma of the breast which is nonpalpable to the patient or the physician with a 90% overall survival rate. Malingren[3] has reported an incidence of 1.4% malignant lesions of the oral cavity being detected on routine cancer detection clinic examination, with a 60% overall survival rate versus a 30% overall survival rate of symptomatic patients with oral carcinoma. Gilbersten,[4] in data from the University of Minnesota Cancer Detection Clinic, reported 24 carcinomas of the stomach with five of the patients with carcinomas surviving five years or more. These five carcinoma patients had a five-year survival rate of 24%, which is better than the national average of a five-year survival rate of 14%. Crumpacker,[5] from the Greenbriar Clinic, reported an 0.8% incidence of carcinoma of the rectosigmoid colon on examination of 5,200 patients with routine sigmoidoscopy procedure. Knight[6] reports a 75% five-year survival rate of carcinoma of the colon detected as asymptomatic and 70% five-year survival rate of carcinoma of the rectum detected as asymptomatic versus 20% in symptomatic carcinoma of the colon and 50% in symptomatic carcinoma of the rectum with a 100% survival rate of carcinoma of the rectum by repeat yearly follow-up examination. Our own data is too small in number and follow-up to project any statistical prognosis related to the rate of survival. However, it would appear that there is convincing evidence to support the thesis that early detection of carcinoma

(Continued on page 367)

A concise description of the objectives of the St. Louis Cancer Detection Clinic, the techniques used in screening the 1,117 patients who have been seen and the results accomplished in eight months. The authors conclude that this teaching and cancer detection project has been a stimulus to the medical profession and general public for the earlier detection of cancer. Dr. Dillard is from the Department of Surgery, Washington University School of Medicine, and Director of the Tumor Clinic, St. Louis, City Hospital. Dr. Criscione is from the Department of Surgery, Washington University School of Medicine and is Director of Clinics, St. Louis City Hospital. This work was supported by USPHS Grant No. 67016-02-67A.

HASSAN A. SALIH, M.D., ***Columbia***

Office Management of an Obese Patient

A GLANCE at national and local magazines will reveal our population's obsession with dieting. Overweight as a sign of health, strength and prosperity is fading away. More people now are concerned about their weight for the sake of appearance and good health. Estimates show that approximately 20% of the population of the United States is obese,[1] with obesity becoming increasingly prevalent.[2] It is well documented that obese individuals, compared to those who are nonobese, are more likely to have chronic diseases such as cardiovascular disorders, diabetes, arthritis, toxemia of pregnancy, etc. Also, obese workers are more of an industrial hazard,[3] especially in situations that demand tolerance to heat and strenuous effort. Because of their susceptibility to these diseases and hazards, obese patients comprise about one third of the family physician's practice.[4]

We are convinced that hyperphagia relates to a number of factors, such as genetic, psychological, environmental and cultural.[2, 5] Emotional maladjustment can cause obesity and vice versa. Since our clinic is situated in a Mental Health Center, it tends to attract a high percentage of obese patients with severe emotional problems. The family physician, on the other hand, is less likely to get patients with severe emotional problems. Therefore, his clientele will have a better prognosis. Obesity frequently is a life-long disorder. The family physician usually sees the patient and his family during a long period of time. He can help his patients to learn new and more efficient eating habits. He can teach them the caloric value and the sources of the nutritious food, an activity which could play an important part in the prevention of the disorder in the younger generation of the family as well as help the adult patient in dealing with his disorder.[6]

I will outline a fairly simple method that requires a 15- to 20-minute interview per week for the first few weeks and then every other week or every month. We think this will be adequate for promoting satisfactory eating habits and, yet, remain within the reach of a busy family physician.

PROCEDURE

After the patients' history and physical and laboratory examinations are completed, we discuss the basic four essential parts of food: carbohydrates, proteins, fats and vitamins-minerals. We inform the patients of the amount of these elements in common foods. We ask the patient to buy a small calorie counter booklet and a small notebook suitable for carrying in a pocket or handbag. We give every patient a few diet menus and other nutritional literature. We ask them to study these carefully but not to feel obligated to follow any one of them. We inform the patients that eating is a learned habit and habits become automatic to a large extent. As a method for bringing this habit to full consciousness, we tell our patients to focus their attention on this fact. We ask them to make a list of all food consumed during the times they are eating or shortly afterwards and to note the time and the constituency of the food.

During their visits, we review this weekly record with the patients. Our general philosophy is to change the patients' eating habits to a three-meals-a-day basis and to reduce to the minimum the intake of starchy and fatty foods. Also, we attempt to substitute the accustomed beverages and snacks with low calorie ones. We ask the patients to think of substitutes for the items of high caloric value (especially if they are of a fatty or starch nature). At this time, we request that they consult the booklets and menus we gave them for hints and suggestions. We always keep the other family members in mind when trying to find an acceptable substitute. For example, we do not promote any type of food other family members dislike nor do we suggest the elimination of any type of food other family members like very much, although we do occasionally suggest limitation of its use. In our experience, looking at the family as a unit has minimized (or eliminated) the psychological isolation that the average dieter feels during his dieting episodes. This tactic maintains the patient as a member of the family at the table. It enhances the family moral support and this adds to the patient's ego strength. It is interesting to see that the insight and the information which the patient gains during these visits spreads to other members of the family (especially teenagers). We are hoping they will serve as a preventive measure. Within a few weeks, the daily eating habits of the patient usually have been adjusted to three meals with very few or no snacks. As the weeks go by, the frequency of the visits can be diminished to every other week or even to every month.

Hints and Pitfalls

Although obesity is a sign of repeated and prolonged dieting failures, it is interesting to note that these patients characteristically start on their new dieting regime with great enthusiasm and unrealistic goals. Discussion and clarification of a rational approach is essential from the start. Probably the most crucial aspect in this discussion centers around the way the patient dealt with his previous relapses and how to deal with any in the future. It is always hard, even painful, for patients to talk about this phase of therapy.

One important aspect of this program is the formulation of a rationalization process to cope with possible relapses. In the past, patients frequently discontinued dieting after their first relapse. They slipped back into their previous eating habits and regained or exceeded their previous weight in a short time. Here, we accept these relapses as an unhappy but essential experience. We explain that there will be no lasting success until each patient learns to deal with these eating sprees satisfactorily. Such rationalization of the relapses and the attempt to learn something from each one have encouraged many patients to resume dieting. They have reduced the guilt and the self-depreciation that frequently accompany relapses and, thereby, facilitate the resumption of the struggle.

As a rule, after the first ten to 15 pounds of weight loss, there will be a few weeks in which the patient's weight will remain on an even plateau. At this time, also, he reaches an emotional realization of the real difficulties of dieting. His enthusiasm starts fading away. He comes to his physician with less and less anticipation of further change. Any further weight loss demands increased effort to reduce the caloric intake or to increase the calories used in exercise. At this point, the physician's optimistic outlook is a crucial factor. Frank discussion of the patient's feelings and expectations are very helpful.

Believing that the role of the obese patient should be changed from passive recipient of his physician's recommendations to an active participant in planning diet menus and proper weight loss, the author presents a brief outline for procedures in accomplishing the dieter's goal and the pitfalls that are encountered. He discusses, also, the psychological and emotional aspects of obesity and the moral support that can be supplied by family cooperation. Dr. Salih is Director of Outpatient Services, Mid-Missouri Health Center, and Clinical Assistant Professor, Department of Psychiatry, University of Missouri School of Medicine.

Some of our patients experienced a continuous "eat-not-to-eat" obsession when dieting. These patients usually were able to cope with it when in good spirits. When the enthusiasm decreased, however, this thought bothered them. Some admitted that it had a lot to do with their relapses. In situations in which the patient's morale was low and we suspected that he was having increasing difficulty in controlling this obsession, we asked him to plan small low-calorie snacks and a more flexible diet. This has helped him to avert relapses and also has spared him the indiscriminate eating that accompanies these relapses. We think these snacks have helped to "let the steam out" of the obsessive thought. As time goes by, the patient learns how to deal with these episodes with less effort and more efficiency.

Our experience has shown that drug therapy is of little value in this program. Drugs tend to increase the patient's expectation of magic from his physician and to reduce his self-confidence. Also, credit for his resulting weight loss is not ascribed by the patient to his own effort.

From the beginning, we informed the patients that, in addition to the unconscious motivation to make a list of the foods which they had eaten, there would be times when they would consciously try to hide this fact because of shame or embarrassment in discussing it with us. We are convinced that talking about the difficulties in resisting the "forbidden" food eventually helped them to fight those impulses more effectively. Being frank and honest about the triumph as well as the failures is an essential part of the program.

We encouraged our patients to eat their meals at home, because restaurants usually are designed to encourage people to eat to maximum capacity. Also, at a restaurant, the patient would miss the learning experience of planning the meal at home. Patients who work and who usually eat in cafeterias were encouraged to take lunches with them. These would at times include a low-calorie salad dressing.

Mice that are fed once daily are liable to accumulate and store more adipose tissue than the same strain of mice that are fed the same amount of food, distributed at intervals during the day.[7] With this in mind, we encouraged our patients to eat three or more meals during the day. Some patients were accustomed to skipping breakfast or lunch. We insisted that they should have them, regardless of their appetite at the time of the meal.

As a rule, obese patients entertain themselves by reading or watching TV. They seldom participate in any activities or games. A vicious cycle dominates their life. If the family physician is able to persuade his patients to break this cycle, they will have a better social and psychological adjustment. It is known that many overweight teenagers eat less than their nonobese colleagues, but they are much less active.[2, 8]

We feel that threatening patients with ill health which results from obesity has no therapeutic value. It frequently adds more anxiety and increases the patient's guilt, which is a self-defeating process. Therefore, we do not recommend this approach.

DISCUSSION

Although obesity has many genetic and environmental determinants, the causative mechanism always must be a food intake which exceeds bodily requirements. Accepting the obesity as a physical problem with psychological complications relieves the patients from "stewing" in guilt and inadequacy feelings. The physician's role is to explore and clarify these thoughts for the patient. Also, the moral issue of obesity merits a discussion with every patient. The concept that obesity is due to hyperphagia which, in turn, is due to lack of self-control or more serious personality problems has wide acceptance in public opinion. We admitted to our patients our lack of knowledge of the causation of the obesity disorder. We explained that many of them are based on some abnormality of carbohydrate metabolism.[7] We are aware of some obese individuals who have a general dislike or hate for food and, yet, show an intense and irresistible craving for particular foods in certain situations.[8] We are aware of their unusual mood fluctuation and its effect upon their eating habits and dieting. Nevertheless, affecting a permanent change in their eating habits is the only way we know to maintain the initial weight loss. In our experience, discussion along these lines has helped some of our patients to greater self-acceptance and, eventually, to be better equipped to fight his disorder.

Although there are at least 40 million overweight individuals in this country, they still display the minority group psychology.[2, 5] For example, they tend to avoid people, to be more sensitive, self-conscious and to withdraw into a state of inactivity which further increases their obesity. They avoid actions which might antagonize others and are sensitive to others' opinions and approval. They act submissively, belittle themselves and feel inferior. They are very weight-conscious in interpersonal relationships. For example, they express the feeling that people who are overweight are not good and trustworthy, while slender people are basically good until they prove otherwise. Some obese patients display a distorted self-image. They look to their bodies with horror, contempt and disgust. The intensity of self-hate fluctuates with their mood and frequently interferes with progress in social adjustment.[9]

SUMMARY

We have considered obesity as an endemic disease with a major public health significance. If a cure were found for carcinoma, the average life expectancy of human beings would be increased by two years. If obesity were cured, it would be increased by four years.[10] Examination of the patients' diets and discussion of their eating habits were considered to be a simple, fast and efficient way of handling this disorder. Many patients experience their main difficulty in following the physician's menus and dietary directives. We feel that including the patients' accustomed food rather than suggesting a new type of menu will result in a greater possibility for a successful outcome. In this way, the patient's role is changed from being a passive follower of his physician's recommendations to that of being an active participant in planning his own diet menus. The patient's dieting is kept within the family context. In this way, he receives the moral support that he needs.

Education of the patient in the nutritious

value of foods probably will act as an obesity preventive measure for other family members. Some practical pitfalls and suggestions were outlined briefly.

Acknowledgment: The author wishes to express appreciation to Dr. Denis Kennedy for his help and suggestions in preparing this article.

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St. Louis Cancer Detection Clinic

(Continued from page 363)

improves survival. Analysis of the statistics is not valid for the number of cases involved and the period covered in this initial report, but it will be later.

Conclusions

Current procedures for mammography and cancer detection methods at the Cancer Detection Clinic at the St. Louis City Hospital have provided an excellent teaching experience for the medical students, interns and resident staff at the St. Louis City Hospital. We feel that the patients have benefited by having carcinomas detected at an early stage for a better survival rate. We also feel that this teaching and cancer detection project has been a stimulus to the medical profession and the general public for the earlier detection of the asymptomatic patient in this community and that every physician's office can and should be a cancer detection clinic for his private patients.

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May 8-10	**Meeting—Mid-Central States Orthopaedic Society** Hotel Ft. Des Moines, Des Moines, Iowa
May 14-15	**Spring Clinical Conference: Chest Diseases** Continuing Education, M. U. School of Medicine Medical Center, Columbia
May 23	**Seventh Annual Pediatric Seminar** Dr. Marvin Cornblath, Professor and Head, Department of Pediatrics, University of Maryland School of Medicine Baptist Memorial Hospital, Kansas City

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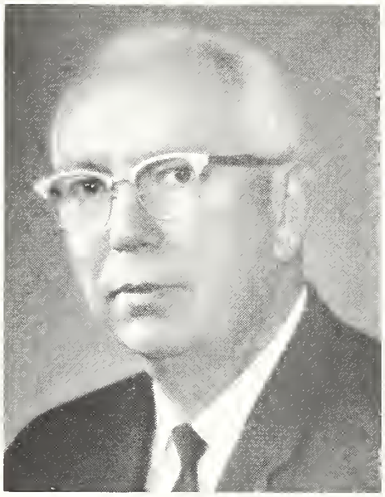
President's Message

The successful 111th Annual Session of the Missouri State Medical Association on March 20-23 is history and members of our Association can await with anticipation the 112th Annual Session scheduled for April 2-5, 1970 in Kansas City.

All members of the Association will not just sit back and wait, however. On Sunday, May 4, Dr. Richard Yore and members of his Scientific and Postgraduate Committee, certain Association Officers and members of the Executive Staff will meet in Jefferson City to start planning next year's annual session.



Doyle C. McCraw, M.D.

The 111th Annual Session will not be easy to surpass. A total of 726 physicians and more than 500 others attended the March meeting at the Hotel Chase in St. Louis. This was the best attendance by physicians in a number of years.

There certainly were reasons for physicians to attend this year's meeting which was highlighted by outstanding scientific programs. The session featuring heart specialists Drs. Denton A. Cooley and DeWitt Leachman of Houston drew special attention.

Dr. Yore and the members of his committee are to be congratulated for assembling such a fine program. Also, our thanks and congratulations go to the organizations and specialty societies which helped by sponsoring scientific programs.

The 1969 annual session was marked by three well-attended, interesting sessions of the House of Delegates. I was most impressed by the excellent attendance of younger members of the profession as Delegates. This is a most encouraging sign for our profession as well as our Association.

Delegates accepted the recommendation of the Council that 1970 dues be increased by $12.50 per year. This will bring MSMA dues to $65.00 for active members, not including the $10.00 special assessment for the Medical Foundation.

As has been pointed out to the membership, operating costs have increased greatly in recent years and these built-in increases along with the cost of the additional functions performed by our Executive Staff have made the dues increase necessary.

The House of Delegates took a number of noteworthy actions during the three sessions—actions which will have an important bearing on the future of our Association and the medical profession. There are far too many to list here in detail, but for your information, here are a few highlights.

The way was cleared for qualified osteopaths to become associate members of county medical societies and the Missouri State Medical Association if societies so desire. Such action by county medical societies will not be held in conflict with the present bylaws of the Missouri State Medical Association. The qualifications of osteopaths shall be evaluated solely on an individual basis by each individual county medical society.

Several resolutions introduced during the annual meeting expressed the current concern over the increasing number and the cost of malpractice actions. The House directed the Medical-Legal Committee of MSMA to investigate the subject of professional liability with the view of alleviating or solving problems in this area. Also, AMA Delegates were directed to seek AMA action in this field. The House also approved a resolution calling for the appointment of regional panels representing all medical specialties to review all suspected cases of medical professional liability.

The House also urged closer liaison with the Student American Medical Association in a bid to bring tomorrow's physicians into the mainstream of American medicine, expressed disapproval of the establishment of health centers unless they are approved by local medical society or societies involved and called for the development of a plan to make certain adequate emergency ambulance service is available everywhere.

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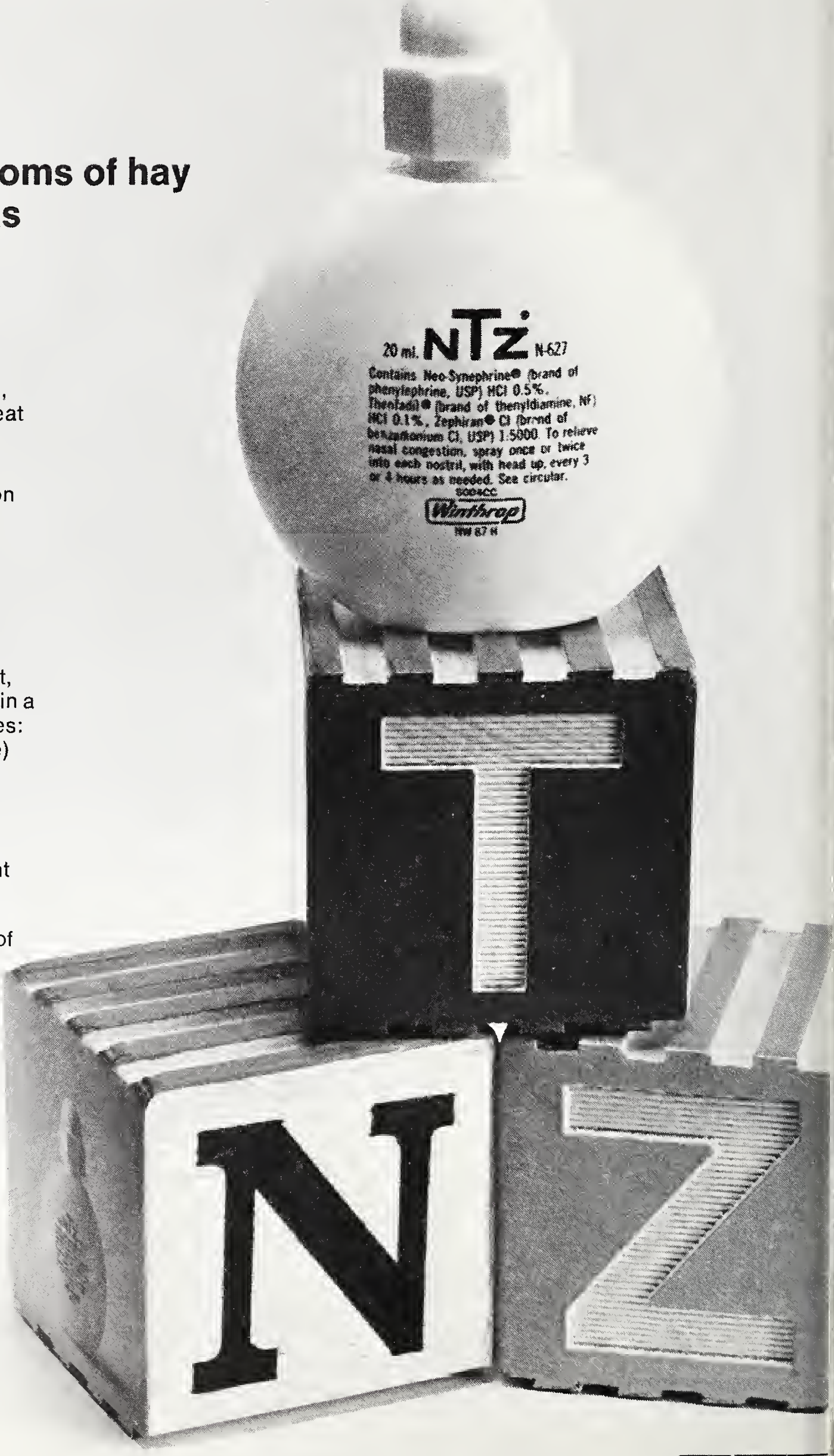
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Woman's Auxiliary

The dictionary defines "convention" as coming together. This is the best part of a convention—renewing friendships, making new friends. Under the gracious guidance of the hospitable St. Louis County Auxiliary, the 44th Annual Convention of the Woman's Auxiliary to the MSMA was a great success.

Mrs. James A. Reid, President

Our special guest for the convention was Mrs. John M. Chenault of Decatur, Ala., who is President-Elect of the Woman's Auxiliary to the American Medical Association. She has been an active auxiliary member for many years on the county, state and national levels. She will lead the National Auxiliary with great strength and knowledge.

The Missouri Doctors have most talented and energetic wives. This we have known but, again, it was apparent in the reports of the Auxiliary officers, chairmen and county presidents.

More than $7,000 has been collected by the Auxiliary for AMA-ERF. This is an increase over last year's amount. For those of you who are not familiar with AMA-ERF, this committee of the Auxiliary supports (1) funds for medical schools, (2) the Institute for Biomedical Research and (3) the Loan Guarantee Fund. The money came from the sale of Christmas cards, "Dream Pets," note paper, remembrance cards, donations and many other fund-raising items and ideas.

Approximately $500 was collected by the Auxiliary for the Missouri State Medical Foundation's student loan fund. This year, Mrs. James Denninghoff of Columbia is Chairman of this Auxiliary Committee and the county auxiliaries will be encouraged to give full support to the Foundation.

I am sure that you, the Doctors, will be interested in the annual report of our International Health Committee: 6,287 pounds of drugs were collected and packed and 2,000 pounds of medical and surgical supplies, 50 pounds of medical text books, 200 pounds of miscellaneous items and $200 were donated to various health agencies.

The Auxiliary has been asked by the National Auxiliary to discontinue the drug collection. We surely are "Our Brother's Keeper."

Dr. Doyle C. McCraw, President of the MSMA, has asked the Auxiliary to cooperate and to work in recruiting physicians in Missouri and to encourage them to remain in Missouri to practice. This is a project in which *all doctors' families* can participate. Let's sell our beautiful state to the students and new doctors. We can show them "Real Missouri Hospitality"!

EDITORIALS

THE PARADOXICAL 21ST CENTURY

According to the best theories of some of our finest theorists, the human family is in one Hell of a fix. If it survives another two hundred years, it will breed itself into a sardine-like oblivion—not enough food—not enough air—not even enough water—no place to stand. If it survives another two hundred years, it will be extinct (nice paradox—and intended) for it will have suffocated its last survivor with polluted air or poisoned him with polluted water. In either case, the dire prediction of certain doom—overbreeding—or overpollution has us concerned.

For a long time, we have questioned the value of being born into some tribes on this earth at the present time—coming here to be hungry 90% of one's entire life, never owning more than a square piece of cloth (furnished by the government), never learning to read or write and having a life span of 20 to 30 years. What value there is in a life like that—to the one living it or to the rest of us who may have a chance to observe it—is hard to determine. But that creature is here and has certain qualities or characteristics that qualify it to be called human. At the rate we are going, the percentage of these hungry, uneducated, ill-clad, homeless creatures will double ever so many years until by sheer mass they will consume the fruits of the earth and, in a final surge of hunger satisfaction, force the remaining percentage of the human family to the level of their fate. All of this through overbreeding.

The other side of the coin is as equally disturbing. Already two populous countries, the United States and Japan, are taking out of the air more oxygen than their green stuff is replacing. Other nations are approaching a similar unbalancing of nature. Yet, we are not attempting to increase the amount of vegetation to offset our oxygen depletion but, rather, we are adding to the problem by cutting down and destroying the green acres of the earth faster than we are replacing them. Witness, in the United States, the areas being paved or occupied by homes or by the deforestation by lumber companies of great areas of big trees and the millions of acres being permanently flooded by reservoirs.

So far as water is concerned, we are nearing a point of no return. The sewage of Omaha, Kansas City and Jefferson City becomes the raw resource of our water supply here in St. Louis only a few days after it leaves "up there." Then, after we run it through our pollution system, we return it to the river for use in Memphis and New Orleans. It is believed that right now one gallon of water from the Mississippi River below St. Louis, if mixed with nine gallons of water from any non-polluted spring-fed Missouri stream, will kill every living organism—plant or animal—in the nine gallons and nothing profitable can be done about solving this problem in the foreseeable future.

Yes, man stands between the horns of a dilemma. If, on the one hand, he overbreeds, even if he cleans up his air and his water, he will become extinct because of the sheer weight of his numbers. If, on the other hand, he does not clean up his habits—clean up his air and his water—he will become extinct because of the sheer weight of the poison he will put in his lungs or his kidneys.

Man need not do one or the other. In his present condition, he can avoid being forced to decide what solution to his multiheaded problem is the right one. All he needs to do is just a little of both now and keep it up for as long as he wants to occupy this globe as an intelligent, civilized mammal.

St. Louis County Medical Bulletin

THE "AMA ANNUAL"

That refreshing summer event—the Annual Convention of the American Medical Association—comes slightly later than usual this year. But once again the "AMA Annual" should figure significantly in advance planning of physicians.

The Annual Convention, of course, is the largest of the many meetings sponsored annually by the AMA. It covers so much of professional interest and attracts so many physicians, members of allied health professions, industrial exhibitors and guests that only a relatively few cities have ample facilities to accommodate it.

This year's Annual Convention will be in the nation's largest city. Because the dates are July 13 through 17, it might be well to add that New York also ranks prominently in extent of air conditioning. But the Empire State's weather can be pleasant in July, and New York City also can benefit from any cool ocean breezes.

For the many physicians who take their families to the AMA Annual Convention, the New York City area obviously offers many and varied attractions.

There is no question about the benefits for the physician. Among other things, there is opportunity to ask questions, discuss techniques and developments with experts and enter into dialogue which no other means of medical communication allows so extensively and instantaneously.

Four general scientific meetings are offered, as well as 23 section programs (with the Section on Special Topics offering six sessions), breakfast roundtables and fireside conferences. Additional postgraduate education is available through the exhibits, medical motion pictures and scientific television presentations.

This might be an excellent time—not a moment too soon—to put down those dates (July 13 through 17) on your calendar, talk to the family about going to New York together and start planning reservations and other details. The American Medical Association's 118th Annual Convention will be here before you know it!

THE DOCTOR'S REPRESENTATIVE

Doctor John Buesseler, in a special article that appeared in the March MISSOURI MEDICINE, commented on three trends or directional forces that are influencing American health care. The article should be read in its entirety. I want to comment on the final paragraphs.

He states: "It is apparent that the man without an organization to represent him, is a man without representation. With the advent of Medicare, the medical societies, either the existing ones or ones to be evolved, were placed in the position in which they could become the physicians' most important representatives at the bargaining table. . . . Although no medical society operating on a national or regional basis has fully accepted the role of collective bargaining agent, its organizational presence in a socio-economic system of vested interest groups mediated by Medicare legislation is pushing it toward that functional position." This is a true and erudite evaluation.

Some physicians in their ignorance or lack of appreciation ask, "Why do we need a county medical society?" There are many obvious answers. The statement by Doctor Buesseler provides the logic for one of these answers—we physicians need a representative.

GORDON C. SAUER, M.D., Editor
Greater Kansas City Medical Bulletin

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County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

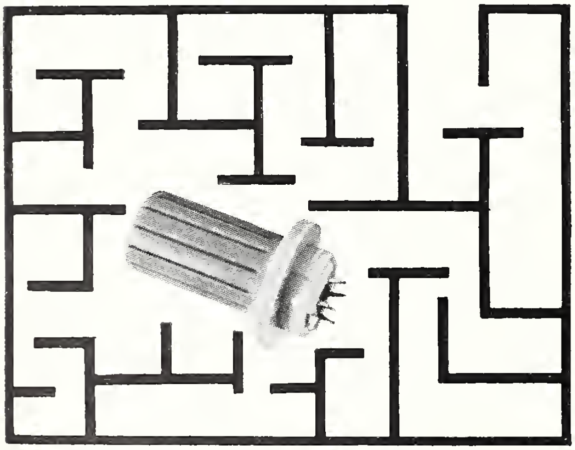
Buchanan County Medical Society

The scientific program of the March 5 meeting of the Buchanan County Medical Society consisted of a Clinical Pathologic Conference. The participants who presented an excellent discussion of the case were Drs. Edward M. Beheler, surgeon; Richard V. Riddell, pathologist; and Edward M. Stevens, radiologist.

The program followed a dinner and business session at Moila Club at which President John L. Mothershead presided. The program was introduced by Dr. Carlyn M. Kline, program chairman.

Preceding the program, Dr. Gerald Troester, new superintendent of St. Joseph Schools, discussed a proposed tax levy that was being submitted to the voters. The Society endorsed the levy by a unanimous vote.

Lawrence H. Pifer, M.D., *Secretary*



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SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

Chariton-Macon-Monroe-Randolph County Medical Society

Dr. Robert Tompson of the Woodland Hospital surgical staff spoke to the Chariton-Macon-Monroe-Randolph County Medical Society members at the regular monthly meeting on March 13 at the Woodland Hospital Medical Library in Moberly. His topic was "Surgical Management of Duodenal Ulcers."

Dr. Tompson has had a broad experience in this field and all other areas of general surgery at the Area Air Force Hospital at March Field, Calif. All of the difficult surgical problems from the area surrounding the base were referred to him.

On March 6, a special meeting of the Society was held with Mr. E. H. Borman, Director of Professional Relations of the General American Life Insurance Company, who spoke on *Part B Medicare.*

Clarence C. Cohrs, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR
WILLIAM D. BRADSHAW, M.D. CLINTON

Lafayette-Ray County Medical Society

The Lafayette-Ray County Medical Society meeting was held on March 11 at Maib's Cafe in Lexington. Twenty members and guests were present. The guests included James Bennett, senior medical student from the University of Missouri Medical Center, who is taking his preceptorship with Dr. Charles Riley of Richmond, and Scott Bealle, senior medical student at the Medical Center, who is taking his preceptorship with Drs. Ben H. Brasher, Joseph S. Cope and Joe Ward of Lexington.

The business meeting was called to order by Vice-President Walter E. Koppenbrink, Jr. following the social hour and dinner. Current business and correspondence were discussed briefly, after which the meeting was adjourned.

Wayne Boydston, M.D., *Secretary*

New Members

David E. Amado-Ledo, M.D., 10695 Bellefontaine Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Amado-Ledo is a native of Havana, Cuba, received his preliminary education at the Institute of Secondary Education and his M.D. degree at Havana University in 1948. He specializes in internal medicine.

Vernon Henry Balster, M.D., 819 Locust, St. Louis, has become a member of St. Louis County Medical Society. Dr. Balster is a native of Alton, Ill., received his preliminary education at Concordia Seminary and George Washington University and his M.D. degree at Washington University in 1957. He is in general practice.

Thomas J. Banton, M.D., 114 Northland Medical Bldg., St. Louis, has become a member of St. Louis Medical Society. Dr. Banton is a native of Madison Heights, Va., received his preliminary education at Duke University and his M.D. degree at Duke University in 1960. He specializes in orthopedic surgery.

Isaac Boniuk, M.D., 4989 Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Boniuk is a native of Glace Bay, N. S., Canada, received his preliminary education at Dalhousie University and his M.D. degree at Dalhousie University in 1962. He specializes in ophthalmology.

Leandro P. Cejas, M.D., 1012 N. Main, Sikeston, has become a member of Semo County Medical Society. Dr. Cejas is a native of Puerto Padre, Cuba, received his preliminary education at Havana Secondary Institute and his M.D. degree at Havana University in 1945. He specializes in obstetrics and gynecology.

Robert Davis Cox, M.D., 6630 Clemens, University City, has become a member of St. Louis County Medical Society. Dr. Cox is a native of Chicago, Ill., received his preliminary education at Wabash College and Notre Dame University and his M.D. degree at Johns Hopkins University in 1949. He specializes in pediatrics.

Klark Exarhou, M.D., 9440 Midland, St. Louis, has become a member of St. Louis County Medical Society. Dr. Exarhou is a native of Greece, received his preliminary education at Kavala High School and his M.D. degree at Athens University in 1960. He specializes in general surgery.

Ted Markham Haley, M.D., 405 E. 19th Ave., Kansas City, has become a member of Clay County Medical Society. Dr. Haley is a native of Boonville, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1965. He is in general practice.

Robert J. Heidenry, M.D., 10 Plaza Square, St. Louis, has become a member of St. Louis Medical Society. Dr. Heidenry is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1967.

Glen P. Johnston, M.D., 5103 Queeny Towers, St. Louis, has become a member of St. Louis Medical Society. Dr. Johnston is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1956. He specalizes in ophthalmology.

James B. Moffett, M.D., 823 Pine Blvd., Poplar Bluff, has become a member of Butler-Wayne-Ripley County Medical Society. Dr. Moffett is a native of Polo, received his preliminary education at the University of Missouri and his M.D. degree at Washington University in 1946. He specializes in internal medicine.

Gordon W. Philpott, M.D., Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Philpott is a native

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of St. Louis, received his preliminary education at Yale University and his M.D. degree at Washington University in 1961. He specializes in surgery.

Littleton J. Plunkett, Jr., M.D., 330 N. 2nd St., Poplar Bluff, has become a member of Butler-Wayne-Ripley County Medical Society. Dr. Plunkett is a native of Henderson, Tex., received his preliminary education at Stephen F. Austin State College and his M.D. degree at the University of Texas in 1958. He is in general practice.

Jonathan R. Reed, M.D., 2601 N. Whittier, St. Louis, has become a member of St. Louis Medical Society. Dr. Reed is a native of Chicago, Ill., received his preliminary education at Fisk University and his M.D. degree at Meharry Medical College in 1965. He specializes in obstetrics and gynecology.

Luis A. Reyes, M.D., 3000 Lafayette Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Reyes is a native of Manila, Philippines, received his preliminary education at San Beda College and his M.D. degree at the University of Santo Tomas in 1954. He specializes in general surgery.

Gary Lewis Robinson, M.D., 609 Cherry, Springfield, has become a member of Greene County Medical Society. Dr. Robinson is a native of Springfield, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1961. He specializes in obstetrics and gynecology.

George D. Sorenson, M.D., 1402 S. Grand Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Sorenson is a native of Gorry, Pa., received his preliminary education at Pennsylvania State University and his M.D. degree at Jefferson Medical College in 1954. He specializes in pathology.

Lawrence S. Steinberg, M.D., 216 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Steinberg is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1960. He specializes in pathology.

Julian Nick Verde, M.D., 6150 Oakland Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Verde is a native of Kansas City, received his preliminary education at Rockhurst College and his M.D. degree at St. Louis University in 1962. He specializes in radiology.

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In Memoriam

Kessler, Joseph John, M.D., St. Louis, a graduate of St. Louis University, 1931; member of St. Louis County Medical Society; aged 65; died Feb. 18, 1969.

Ball, James E., M.D., San Gabriel, Calif., a graduate of Washington University, 1904; member of Jackson County Medical Society; aged 86; died Feb. 22, 1969.

Wilucki, Leo E., M.D., St. Louis, a graduate of St. Louis University, 1909; member of St. Louis Medical Society; aged 87; died Feb. 22, 1969.

McClure, Thomas C., M.D., Ft. Lauderdale, Fla., a graduate of the National University of Arts and Sciences, 1917; member of Semo County Medical Society; aged 76; died Feb. 27, 1969.

Ernst, Edwin C., M.D., St. Louis, a graduate of Washington University, 1912; member of St. Louis Medical Society; aged 84; died March 13, 1969.

Seabaugh, Dayton I. L., M.D., Jackson, a graduate of Barnes Medical College, 1905; member of Cape Girardeau County Medical Society; aged 86; died March 16, 1969.

Eldridge, Charles J., M.D., Kansas City, a graduate of Rush Medical College, 1920; member of Jackson County Medical Society; aged 76; died March 21, 1969.

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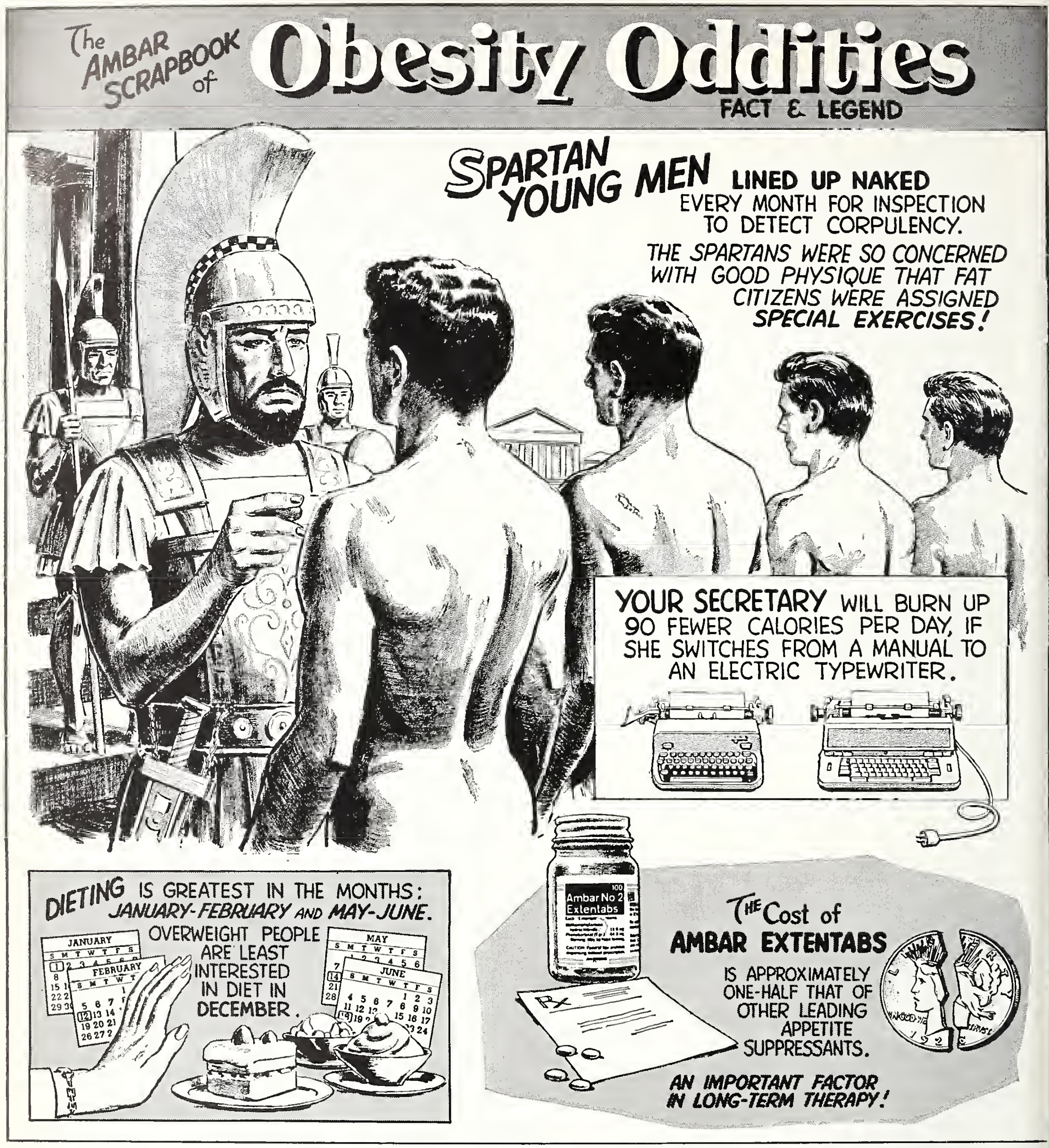
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WASHINGTON

The Department of Health, Education and Welfare issued proposed regulations setting standards for rubella vaccine, making it possible that it will be ready for distribution in limited quantities by about June 1.

The standards cover production methods, safety, purity and potency. They were developed by the Division of Biologics Standards, a unit of the National Institutes of Health. Final regulations could be published as early as May 3. Indications were that two manufacturers would have a vaccine ready for initial distribution soon after the regulations had been made final.

"This means that we are one step closer to the prevention of a disease that has caused an untold number of tragic births," HEW Secretary Robert H. Finch said when the proposed regulations were issued.

The regulations apply to vaccines containing a live virus strain known as HPV-77, which is grown in either duck embryo or dog kidney cell culture systems. Experimental vaccines produced in accordance with the standards have undergone extensive community testing in the United States and abroad. Two manufacturers, Merck, Sharpe & Dohme and Philips Roxane Laboratories have produced vaccines based on this strain.

Smith, Kline & French Laboratories has tested widely an experimental vaccine containing the Cendehill strain of rubella virus.

An HEW announcement said: "German measles is a threat to susceptible pregnant women at any time, but the threat increases significantly during epidemic years. One of the most tragic and disastrous epidemics to hit the United States in modern times was the German measles epidemic of 1964-1965. This resulted in about 50,000 abnormal pregnancies. About 20,000 infants were born with such crippling defects as mental retardation, heart disease, blindness and deafness. The remaining 30,000 pregnancies terminated in miscarriage or stillbirth."

* * *

Two spokesmen for the medical profession asserted before a Senate subcommittee that the policies and scientific journals of their organizations are not biased in favor of the prescription drug industry because of the drug advertising revenue.

Sen. Gaylord Nelson (D., Wis.), chairman of the Senate Monopoly Subcommittee which is making a broad study of the ethical drug industry, accused the medical journals of following the pharmaceutical industry's line to get advertising dollars.

Both Dr. Edward R. Annis, a member of the AMA Board of Trustees, and Dr. Maynard I. Shapiro, president of the AAGP, emphatically denied the charge. Both cited the high, objective advertising standards of their organizations' publications.

"The American Medical Association's programs and policies have never been, are not now and will never be shaped by any dependence on the drug industry," Dr. Annis said, "And to assure that there is no conflict of interest, the AMA has consistently separated the editorial management, advertising acceptance and business management of each of its scientific publications. . . .

"We believe that no publication surpasses our own standards for acceptable advertising."

Nelson sharply criticized the *Journal of the American Medical Association* as to the ads it carried on chlormycetin after the drug had been judged to be extremely dangerous. Annis acknowledged that "one Madison Avenue effort . . . slipped through the net" of AMA advertising standards. He pointed out the various warnings on the drug carried in the editorial content of *JAMA* and other AMA publications.

"Advertising is screened by a group of physicians, all of whom we consider qualified to perform their task," Dr. Shapiro said. "We don't list the names of these physicians in our magazines because we believe they prefer a degree of anonymity. All are medical school faculty members and all, in our opinion, are well qualified to screen pharmaceutical advertising."

Dr. Shapiro also said that at least two drug firms had canceled ads in AAGP publications after they had carried editorials adverse to the companies.

The Food and Drug Administration has taken the first step to halt the marketing of 78 antibiotic combination products. The ultimate action was recommended by the National Academy of Sciences-National Research Council, which is evaluating the effectiveness of about 3,600 new drugs marketed from 1938 to 1962.

Generally, the 78 products were found ineffective as fixed combinations for claims made in their labeling. The FDA emphasized that this does not necessarily mean that either the antibiotics or other active ingredients of the products are ineffective when used alone.

The majority of the 78 products are antibiotic-sulfa combinations in tablet, capsule or liquid form. Also included are 16 penicillin-streptomycin combinations that are given by injection. Other antibiotics used in the preparations include erythromycin, neomycin, tetracycline, chlortetracycline, nystatin, oxytetracycline, oleoandomycin, and triacetyloleandomycin. In addition, some of the preparations contain analgesics, vitamins, or other ingredients.

Many of the affected products have been promoted widely and found wide acceptance in the medical profession. Several of the manufacturers promptly said they would contest the FDA ruling and others were expected to oppose it. The manufacturers were given 30 days to submit any new data on efficacy of the products.

There were 12 products in the first groups, announced last December. A decision still was pending on whether manufacturers of those products should have additional time to submit evidence of efficacy.

The FDA can halt the marketing of antibiotic-containing preparations by deleting them from regulations listing the antibiotic drugs acceptable for certification. Antibiotics and insulin, unlike other drugs, must be certified on a batch-by-batch basis before they can be marketed.

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FULTON—Psychiatrist and General Practitioner wanted in large mental hospital. Forty-hour week, liberal vacation, sick leave and other fringe benefits. Salary based on experience and education—$18,000 to $25,000. $2,000 per year additional for board certified. Contact Donald B. Peterson, M.D. (Col. U.S.A. Retired), Supt., Fulton State Hospital, Fulton, Mo. 65251.

SEMI-RETIRED PHYSICIAN—To work in large industrial plant in St. Louis to do pre-employment examinations and injury cases. Less than 40 hours weekly. depending upon work load; five days weekly. No hospital work, no week-ends or night calls. Age is no factor. Contact Box 354, Missouri State Medical Association, 515 East High, Jefferson City, Mo. 65101.

WANTED—General practitioner or pediatrician to join seven-man group. Salary for two years and then partnership. Wyeth Hamilin, M.D., The Hannibal Clinic, Hannibal, Mo. 63401.

GENERALISTS—Tired of the Solo Rat Race? Medical Arts Clinic in Farmington is expanding its general medicine services. Three minutes from a new hospital in Eastern Missouri's nicest small town. C. W. Chastain, M.D., Farmington, Mo. 63640.

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WANTED—Obstetrician, Internist, Pediatrician or General Practitioner interested in these disciplines or interested in anesthesia to join six-man hospital-clinic group. Write V. W. Lehr, Administrator, Grim-Smith Hospital & Clinic, 112-201 E. Patterson, Kirksville, Mo. 63501.

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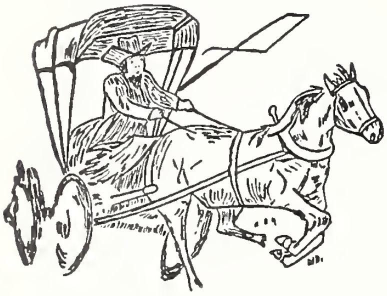
Missouri Medicine in Review



FORTY YEARS AGO

The Greene County Medical Society is making preparations for a great meeting of the Missouri State Medical Association on May 13-16. The golf tournament on May 15 is planned by the Golf Committee. The tournament will be played at the Hickory Hills Golf Club, which has one of the finest golf courses in the state.

It is less than 30 years since the Commission headed by Walter Reed found that the yellow fever mosquito alone carried the infection. No struggle waged solely for the good of all mankind has a longer or nobler list of martyrs, from Dr. Jesse W. Lazear, who died in submitting himself to mosquito inoculation in 1900, to Noguchi, who died of yellow fever recently in South Africa. Advances are being made, and the latest is the work of a Missouri man, Dr. E. V. Cowdry, professor of cytology at the Washington University School of Medicine. At this moment, when much has been learned about yellow fever within a 12-month period, an epidemic rages in Brazil. Dr. Cowdry and Dr. S. F. Kitchen of the Rockefeller International Health Board, in research under the Board in New York, have found apparently conclusive evidence that there is only one type of yellow fever. They found similar cytological effects in liver sections whether the infection was of the "South African type" or the "West African type."

Despite the fact that the Boston meeting of the American College of Physicians was held on April 8-12 at the extreme eastern border of our country, the distant West was well represented by men of reputation and quality. It always has seemed paradoxical that the physicians who have gained prominence through ardent labors and tireless application are those who attend these meetings.

TWENTY-FIVE YEARS AGO

Changes in the physician-population ratio in Missouri are interesting. The overall Missouri population increased 13%, but the rural population remained unchanged. Statewide, the number of physicians decreased 10.8%—in rural Missouri, the decrease was 44.2%. Population per physician increased from 531 to 682 throughout the state and from 650 to 1,160 in rural Missouri. Following are the number of doctors who were in the Armed Forces in 1940: Jackson County, 170 (population—477,838); St. Louis City, 480 (population—816,048); outstate Missouri, 264 (population—2,490,788).

The Cooper County Medical Society met on January 28 at St. Joseph's Hospital in Boonville with the following members present: Drs. J. O. Boley, Pilot Grove; G. L. Chamberlain, New Franklin; R. L. Evans, G. W. Winn, T. C. Beckett, W. H. Ziegler and J. C. Tincher, Boonville. The following officers were elected: President, Dr. G. W. Winn, Boonville; Vice-President, Dr. J. O. Boley; Delegate, Dr. G. L. Chamberlain, New Franklin; Alternate Delegate, Dr. W. H. Ziegler, Boonville.

TEN YEARS AGO

Raymond O. Muether, M.D., St. Louis, was selected by the MSMA House of Delegates to serve as President-Elect for the coming year. He will serve in that capacity until the next Annual Session when he will be installed as President. Dr. Muether became editor of MISSOURI MEDICINE in May, 1949 and served in that capacity until January, 1953.

The Carthage Press carried a picture and story about Leroy Simmons, M.D., Sarcoxie, and his 53 years of practice, as well as his military experience.—More than 500 persons attended a testimonial dinner for Dr. Claude J. Allen, Rich Hill, on February 27 at the Rich Hill High School Auditorium in honor of his completion of 50 years of practice.

Joseph E. Flynn, M.D., Columbia, was appointed to serve a four-year term on the test committee of the National Board of Medical Examiners.

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Missouri Medicine

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MSMA News

Anatomical Act Waits Hearnes' OK

Missouri has moved very close to joining the growing list of states which have adopted the Uniform Anatomical Gift Act. As of May 19 the measure needed only Governor Warren E. Hearnes' signature to become law.

Both the Missouri Senate and the House approved the Uniform Act with only minor variations from the measure suggested for all states.

The bill was handled in the Senate by Sen. Albert Spradling (D-Cape Girardeau) and in the House by Representative Richard Rabbitt (D-St. Louis).

Attached to the bill was an emergency clause which makes it law as soon as it is signed by the Governor.

The Missouri State Medical Association gave strong support to the measure in both houses of the legislature.

The measure should facilitate the donations and procurement of human organs and tissues. It represents a major step toward resolving many of the existing legal uncertainties surrounding such donations and procurement.

Among points covered in the uniform law are: 1. Individual Authority to Donate. 2. Next of Kin Authority to Donate. 3. Possible Conflict between Donor and Next of Kin. 4. Donees including permissible donees and the obligations of donees. 5. Purposes for which Donations Can Be made. 6. Mechanism of Gift-Wills. 7. Mechanism of Gift — Other Written Instruments. 8. Mechanisms of Gifts — Cards. 9. Mechanisms of Gift by Next of Kin. 10. Revocation or Amendment of Gift. 11. Protection from Liability for Physicians and others acting in accordance with the Statute. 12. The Problem of Conflict of Laws. 13. The Time of Death.

AMA Award Presented To Smithville Senior At International Science Fair

An 18-year-old senior of Smithville (Mo.) High School, Bradford Powell Keeney, was named one of the six winners of the awards presented by the American Medical Association at the 20th International Science Fair May 5-9 in Fort Worth, Tex.

He was selected by a team of judges from the AMA Council on Scientific Assembly for his exhibit on "Effects of Adrenalin, Cortisone and Insulin on Glycogen Content of Hepatic Tissues Perfused in Vitro," entered as a finalist from the Greater Kansas City Regional Science Fair.

The announcement was made at the annual AMA-hosted Health Awards Banquet by Milford O. Rouse, M.D., Dallas, immediate past AMA president, at the Hotel Texas May 8.

Keeney was selected for the AMA Award of Merit citation from a field of 391 contestants from regional, state and foreign science fairs in 46 states, the District of Columbia, Canada, Germany, Japan, Peru, Puerto Rico, Sweden and Switzerland. He was also named winner of the "First Award" presented by Science Service, Washington, D.C., which administers the annual competition.

His father is the Rev. W. Powell Keeney and his mother is a teacher in junior high school. They reside at Maple Circle, Smithville.

Young Keeney, who plans to study medicine, had already established a remarkable list of honors before the international competition in Fort Worth. In addition to the top award at the recent Greater Kansas City Regional Science Fair, which won him the right to compete in Fort Worth, he has received scholarship awards for the past three years in high school for ranking first in the ninth, tenth and eleventh grades; a Heart Association award and grant; honorable mention in the Max Thorton Science Essay Contest; a "first rating" at the state music contest; the Junior High School Mathematics Award; First Grand Prize in the senior biological division of the Kansas City Regional Science Fair; the award of the College of Apothecaries; also the citation of the Jackson County Medical Association; the World Book Encyclopedia award; the citation of the Kansas City Society of Anesthesiologists; the Midland Biological Laboratories award; first place honors in zoology from the Kansas City District Junior Academy of Science, and his school's "most outstanding student" commendation. In addition to serving as co-captain of his school basketball team, he has worked part-time in the school maintenance department, as an occupational therapist and as a pianist.

Legislative Session Into Final Weeks

The Missouri General Assembly moved into the final six weeks of the 1969 annual session the week of May 19th with much work remaining.

The following is the status of major health legislation being considered by the Missouri General Assembly as of May 19th unless otherwise indicated.

House Bill 16, the emergency appropriation bill which included $150,000 in planning funds for the University of Missouri-Kansas City Medical School, was passed by both houses and signed into law by Governor Warren E. Hearnes. Appropriation of the $150,000 is seen as a legislative commitment to establish the new school in Kansas City.

House Bill 7 which includes $460,000 in additional planning money for the Kansas City Medical School has been approved by the House and in May was defeated by the Senate. Hope for the money lies in Conference Committee action.

House Bill 39 provides for the registration of physical therapists under the Board of Registration for the Healing Arts. It follows the MSMA's umbrella concept for paramedical personnel. The bill has been passed by the House and approved by the Senate Committee on Public Health and Welfare. The bill, as of May 19, awaited action on the third reading calendar for House Bills in the senate, final step necessary for passage.

House Bill 40 provides for mandatory reporting by physicians and others in cases involving child abuse. It includes immunity for those reporting in good faith to the county welfare office or juvenile officer. Bill has been passed by House and approved by Senate Public Health Committee. It also awaited action on the third reading calendar for House bills in the Senate, final step necessary for passage.

House Bill 85 which seeks to make various changes in the chiropractic practice act has been passed by the House and sent to the Senate.

Committee amendments which were accepted by the House deleted several proposed changes in the chiropractic practice act. Provisions still in the bill would give the State Chiropractic board some control over advertising by chiropractors. Also, under the bill chiropractic registration fees would be increased as would per diem for board members and the salary of the board's secretary.

House Bill 341 provides for a system of medicolegal examiners who would operate under the Board of Health. The bill has been perfected by the House but since it has a fiscal note calling for the expenditure of funds it has been sent to the House Economics Committee. As of May 19 the committee had not acted on the bill and its fate is in doubt. Senate Bill 146 on the same subject failed to come out of a Senate committee

House Bill 620 and Senate Bill 270 provide for a change in the statute of limitations concerning malpractice. Both add the provision that action for malpractice must be brought within two years after the date malpractice became known if this date is later than the date of the action.

A House Committee Substitute for House Bill 620 which embodies some of the changes which MSMA has suggested for the bill was 53 bills down on the House perfection calendar as of May 19. The Senate Bill, in its original form, was on the Senate Informal Perfection Calendar. MSMA had prepared a substitute bill for S.B. 270 which was to be introduced on the Senate floor at the time 270 came up for debate.

Senate bills 204 and 275 would bring non-profit health service corporations such as Blue Cross and Blue Shield under regulation of the Missouri Department of Insurance and provides that they would have to pay a two per cent gross receipts tax. Both bills have had hearings in the Senate Insurance Committee and since they were not approved by the Committee appear dead for this session. House Bill 557 with the same contents as 204 appears dead in the House Insurance Committee.

House Bill 142 provides for the registration of psychologists under their own board. After a hearing before the House License Committee a substitute bill was prepared and approved by the committee which would place the psychologists under the Board of Healing Arts following MSMA's umbrella concept. Also included in the substitute was a new definition of psychotherapy as suggested by MSMA. The bill was 73 bills down on the House perfection calendar as of May 19.

House Committee Substitute for House Bill 475 provides that the procurement, processing, distribution or use of whole blood, plasma, blood products, blood derivatives and human organs are not to be a sale but a rendition of a service by all participants. The bill, as of May 19, had been approved by the House and had a hearing in the Senate Public Health Committee. The committee had not acted on the bill.

House Bill 515 calls for the registration of opticians under their own board. Hearing has been held in House License Committee. Since the bill has not been approved by the Committee the measure appears to be dead for this session of the Legislature.

House Bill 740 provides that anyone who renders emergency care in good faith is without liability. (Good Samaritan Bill). The bill has been approved by the House Committee on Civil and Criminal Procedure but as of May 19 was at the bottom of the perfection calendar and has little chance of advancing.

House Bill 581 which provides for state grants to Missouri's private medical and osteopathic colleges has been passed by the House and sent to the Senate.

WASHINGTON

Health, Education and Welfare plans to impose Blue Shield schedules for physicians under Medicaid and to limit payments to hospitals under Medicaid and Medicare drew strong responses from the American Medical Association and the American Hospital Association.

Dr. Dwight L. Wilbur, president of the AMA, urged in a letter to Robert H. Finch, HEW Secretary, that all segments of the health care field be consulted in affecting economies in government-paid health services.

"The American Medical Association is eager to make available to your office the composite experience and judgment of the nation's physicians, who are the principal providers of health care to all the people," Dr. Wilbur said. "The needs and problems of patients in all walks of life, at all income levels, come to their attention, in composite, more than a billion times a year.

"It has always been a principle of both the humanity and the professional code of the physician that no one shall ever be denied quality health care because of his inability to pay. The present concern is how this universal care can best be provided within a viable economic system and in the face of burgeoning demand for medical manpower, services, and facilities. . . .

"The knowledge and judgment of the nation's physicians—as well as of the prepayment plans, health insurance industry, hospitals, the allied health professions, the actuaries and others—must be enlisted in your battle against the health-care portion of the inflation problem."

Dr. Wilbur wrote Finch following the HEW announcement that federal spending on the Medicaid-Medicare programs would be trimmed by $328 million through imposing Medicaid fee schedules based on prevailing Blue Shield rates, limiting mental illness benefits under Medicaid and cutting down hospital overhead allowances in Medicaid and Medicare.

"It is important to recognize that there are many variables in the circumstances of payment for medical and hospital services," Dr. Wilbur said. "Local needs and resources, the educational and motivational levels of the people, the economic conditions of the state and the community are among the reasons for the differences exhibited by the payment patterns of the Blue Shield plans and health-insurance companies.

"These circumstances must be the foundation for any policies involving cost and payments. No universal pattern—no matter how many variations it may try to provide—can be imposed on the thousands of localities without wreaking havoc and probably increasing inefficiency and costs."

Concerning the imposition of Blue Shield rates as free schedules under Medicaid, Dr. Wilbur warned in an address before the American Society of International Medicine in Chicago that a later step "might be that of physicians in groups on salary and abandonment of the fee-for-service principle." He said that physicians, in combatting such government efforts, must accept the major responsibility of keeping fees as moderate as possible.

The American Hospital Association protested in a letter to President Nixon against removal of the 2% overhead allowance for hospitals. Officially representing the AHA, Ray R. Eppert, Detroit, Mich., hospital trustee, said in a memorandum accompanying the letter to Nixon:

"The recent announcement of a reduction in Medicare reimbursement poses a serious threat to institutional integrity and, therefore, to the ability of hospitals to serve the sick and injured of this nation. Hospitals have been repeatedly assured at the highest levels of government that Medicare changes would not be made without consultation with their designated representative, the American Hospital Association.

"The AHA has tried repeatedly but unsuccessfully to meet with Secretary Finch. It is incredible that the federal government would propose, without any consultation, removal of the 2% allowance which is a proper component of reasonable costs guaranteed under the law as passed by the Congress.

"The department apparently deemed it unnecessary to consult with the hospital field, and, as far as can be determined, made no serious study of the effect of the proposed reduction on hospitals. Payment of nothing but raw costs will lead . . . to the serious underfinancing of our hospitals."

* * *

The Joint Commission on Mental Health of Children is recommending a broad program aimed at bettering the health of the nation's

(Continued on page 452)

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Special Feature

Abstracts From the Missouri Regional Meeting of the American College of Physicians

MISSOURI MEDICINE *is pleased and proud to publish abstracts of papers presented at the 1969 Missouri Regional Meeting of the American College of Physicians. The papers published here were presented in full. Papers in a second group were read by title only and the abstracts are scheduled for publication in the August, 1969 issue of this Journal. Raymond G. Slavin, M.D., F.A.C.P., St. Louis, served as Chairman of the Program Committee for this meeting.*—THE EDITOR.

Erythropoietic Effects of Thyroid Hormones

NEIL I. GALLAGHER, M.D., F.A.C.P. AND
ROBERT M. DONATI, M.D., ST. LOUIS

From the Veterans Administration Hospital and the Department of Internal Medicine, St. Louis University School of Medicine

Clinical and experimental observations have not clarified the interrelationship of thyroid function and erythropoiesis. Reversible ferrokinetic alterations characteristic of accelerated erythropoiesis occur in thyrotoxic patients, and enhanced oxygen requirement resulting from the increased thyroid hormone has been proposed as the stimulus to the altered erythropoiesis. This explanation agrees with the concept that adjustments in red blood cell mass reflect changes in the total tissue oxygen requirement with the increased RBC production being mediated by augmented erythropoietin. Several observations militate against so simple an explanation. Similar erythropoietic responses are evoked by the calorigenically-inactive and the calorigenically-active isomeres of triiodothyronine, DT3 and LT3. The inability to demonstrate elevated plasma erythropoietin levels in thyroid-treated animals and the increase in RBC radioiron incorporation in thyroid-treated polycythemic rats suggest that thyroid hormones may exert a direct effect on erythropoiesis.

In the present studies, (1) the erythropoietic response to LT3 and DT3 of the nephrectomized rat, which is unable to elaborate erythropoietin was assessed; (2) the direct erythropoietic action of thyroid hormones was determined in an in vitro reticulocyte incubation system; (3) the effect of chronic administration of these hormones on the RBC mass was determined in ambient environment and under atmospheric hyperoxia, where increased oxygen carrying capacity was expected to alter response to thyroid hormone induced oxygen need. Both DT3 and LT3 increased the 18-hour RBC 59-Fe incorporation in nephrectomized rats. DT3 and LT3 augmented hemoglobin synthesis in a reticulocyte incubation system whereas erythropoietin did not. Chronic administration of LT3 increased the RBC mass in animals maintained in a normal environment but to a significantly less degree in a hyperoxic environment. Thus, thyroid hormones augment erythropoiesis by increasing oxygen requirement and, in addition, by a direct action on hemoglobin synthesis.

* * *

## Plasma Volume Estimation Using Indium^{113m}

R. D. WOCHNER, M.D., A. VAN AMBURG, M.D.
AND E. J. POTCHEN, M.D., ST. LOUIS

From the Department of Internal Medicine, Washington University School of Medicine

This study describes the application of the versatile new nuclear scanning agent, Indium^{113m} (^{113m}In), to the estimation of plasma volume. ^{113m}In has a physical T ½ of only 1.7 hrs and is readily available in 3+ valence state by elution from a tin (^{114m}) generator using 0.05N HCl. In this form, ^{113m}In is tightly bound in vitro and in vivo by plasma proteins, especially by transferrin. Prior to injection, the ^{113m}In obtained from the generator was diluted in saline. To avoid adherence of ^{13m}In to glassware, the ^{113m}In-saline solution was kept at a low pH. This was accomplished by maintaining at least 0.001N and usually 0.005N HCl. Standards were prepared from this solution either by dilution in a volumetric flask with 0.05N HCl or by directly weighing an aliquot into counting vials with a precision balance.

Plasma volumes were estimated simultaneously by three methods: using the initial (ten minutes) dilution of ^{125}I-albumin, ^{131}I-IgG and ^{113m}In. It was found in 18 patients that the estimation of plasma volume using ^{131m}In averaged 107% of the simultaneous ^{125}I-albumin estimate, while the ^{131}I-IgG averaged 91.8% of the albumin value. These 18 patients had a wide variety of diseases and their plasma volumes (by ^{125}I-albumin) ranged from 31 ml/kg to 68 ml/kg.

These results indicate that ^{113m}In provides an accurate, convenient method of estimating plasma volume. It has the advantages of minimizing patient radiation dosage and of allowing repeated measurement in the same patient to follow rapidly changing clinical situations.

* * *

The Clinical Value of Precordial Motions in the Diagnosis of Heart Disease

EDWIN E. WESTURA, M.D., F.A.C.P., ST. LOUIS

From the St. Louis University School of Medicine

Precise and detailed evaluation of jugular venous pulse, carotid pulse and body surface features of patients presenting for cardiac evaluations can provide much information of diagnostic value to the clinician. While few symptoms or signs are pathognomonic of a given anatomic fault or defect, combinations of findings linked with experience and judgement will provide information sufficient for etiologic and functional classification accurately in 95% of the cases examined. Additional precision in functional and etiologic diagnoses is obtained by close evaluation of precordial motions.

In the studies reported, precordial motions observed in 20 normal subjects, in ten subjects with volume loaded, in ten subjects with pressure-loaded hearts and in ten subjects with cardiomyopathy are described. An additional group of subjects with late systolic lifts also are described. From the bedside evaluation as documented by quantitative precordial tracing of these observed motions, characteristic discriminatory features are presented which permit improved bedside functional and etiologic classification of patients with heart disease.

* * *

Prediction of Coronary Heart Disease

J. M. MARTT, M.D., F.A.C.P., COLUMBIA

From the Department of Internal Medicine, University of Missouri School of Medicine

Mathematics has been employed by Gerther, Epstein and others to predict proneness to coronary artery disease using linear regression equation analysis. This refined approach is difficult to apply without computer assistance and no equation has yet been formulated which includes *all* of the known risk factors.

We have utilized the results of many published investigations dealing with coronary artery disease "risk factors" and from them have calculated a simple mathematical "significance value" for several of these "factors." These values then were applied to 70 patients with coronary artery disease and to 15 subjects proven to be free of disease. All were less than 51 years of age. A cumulative score was obtained for each group of patients with the ultimate objective of determining an appropriate differential score.

A mathematical formula was used in arriving at the "significance value" for each of eight risk factors or combinations of factors. The formula is concerned with the incidence of a symptom or sign (J) for a given disease (K) as it relates to frequency of the same symptom or sign in the general population (PK). The product of the equation represents the "significance value" of the particular symptom or sign.

A total score was determined for each of the 85 subjects based upon the absence or presence of the various risk factors and was expressed as the percentage of the maximal obtainable score. Of the entire group of patients, more than one half had nine or more "factors" recorded in the medical record and available for grading.

A score of 33% was found to discriminate effectively between patients with coronary heart disease and those proven to be free of the disease. The mean score for men with myocardial infarction was 58.3% ± 23 and that for subjects with coronary atherosclerosis demonstrated by coronary arteriography but without myocardial infarction was 45.5% ± 15. In subjects with normal coronary arteries shown by arteriography, the mean score was 9.7% ± 16. The differences between the mean scores of the normal and abnormal groups are highly significant, p = <.001.

Determinations of at least five "risk factors" were required, one of which assessed the serum lipids, to be of significance in discriminating between the two groups.

The probability of the presence of coronary heart disease in men less than 50 years of age can be predicted with considerable accuracy. The application of a numerical significance to the various proven "risk factors" for coronary heart disease can enable the physician to quantitate the risk for the disease rather than base a decision upon an informed and intelligent guess.

* * *

Effects of Succinyl Choline on Creatine Phosphokinase (CPK) in Anesthetized Dogs

GERALD T. PERKOFF, M.D., ROY ABERNATHY, M.D. AND MARTHA RUIZ, M.D., ST. LOUIS

From the Division of Health Care Research, Washington University School of Medicine and the Institute of Medical Education and Research of the City of St. Louis

Myoglobinuria may follow anesthesia with halothane and succinyl choline in man, but it is uncertain whether the cholinesterase inhibitor or the volatile anesthetic is responsible. We have studied the effects of halothane, halothane plus succinyl choline and halothane plus tubocurare in adult mongrel dogs.

Blood samples for creatine phosphokinase (CPK) were obtained at 30′ intervals from the dogs during 4.0-5.0 hours of halothane anesthesia after induction with Surital (sodium thiamylal), a short acting barbiturate. Six animals received halothane alone, 20 (ten males and ten females) received in addition, succinyl choline, 20 mg/hr. Another ten males and ten females received tubocurare, 3.5-4.5 mg/hr instead of succinyl choline.

Serum CPK remained unchanged in animals given halothane alone or halothane plus tubocurare. In male dogs given succinyl choline, CPK increased from control values of 23.1 ± 1.636 international units (IU) to 48 ± 1.005 IU. In female dogs, the changes were even more striking. Control values averaged 39 ± 6.544 IU and rose to 121 ± 32.966 IU at 4.0 hours.

These results indicate that in dogs neuromuscular inhibition with a cholinesterase inhibitor results in increased muscle cell permeability, particularly in females. This effect is not apparent when a different type of paralytic agent is used. That this change is more striking in the female than the male is of special interest, and suggests a hormonal basis for maintenance of muscle cell integrity, at least in the dog. The present observations also suggest that myoglobinuria occurring in man after anesthesia with halothane-succinyl choline probably results from the effects of the succinyl choline and not from the volatile anesthetic.

* * *

Hyperamylasemia Due to Protein Bound Amylase

HOBART R. HANSEN, M.D. (BY INVITATION), HAROLD VAN KLEY, M.D. (BY INVITATION) AND WILLIAM A. KNIGHT, JR., M.D., F.A.C.P., ST. LOUIS

An apparently healthy man without evidence of pancreatic, salivary gland, liver or small bowel disease and with serum amylase activity ranging from 2,000 to 6,000 Somogyi units was investigated. The serum amylase was studied by chromatographic separation on polyacrylamide (Bio-Gel P-150) and dextran (Sephadex G-200) gel columns. With polyacrylamide chromatography, the serum amylase was associated with the high molecular weight proteins. When the serum amylase was fractionated with dextran, the amylase appeared in both the high and low molecular weight fractions. Rechromatography of the high molecular weight amylase on dextran again gave activity in high and lower molecular weight fractions. This suggested an interaction of the amylase with the dextran gel resulting in partial dissociation of the amylase-protein complex. During gel filtration with polyacrylamide at pH 3.4, the amylase is retarded and dissociated from the high molecular weight protein. If the dissociated amylase and protein are recombined, the pH adjusted to 6.8 and refractionated, the high molecular weight protein-amylase complex is reformed.

Further studies on the patient's serum indicated a high total protein with an elevated beta globulin. Quantitation of the immunoglobulins with Hyland Gel plates revealed that the immunoglobulins A and M are more than double the normal concentration. Immunoelectrophoresis showed an increased immunoglobulin A. Ultracentrifugation of serum proteins gave no indication of an increased level of macroglobulin. Anti-immunoglobulin studies are in progress to determine whether the amylase is precipitated

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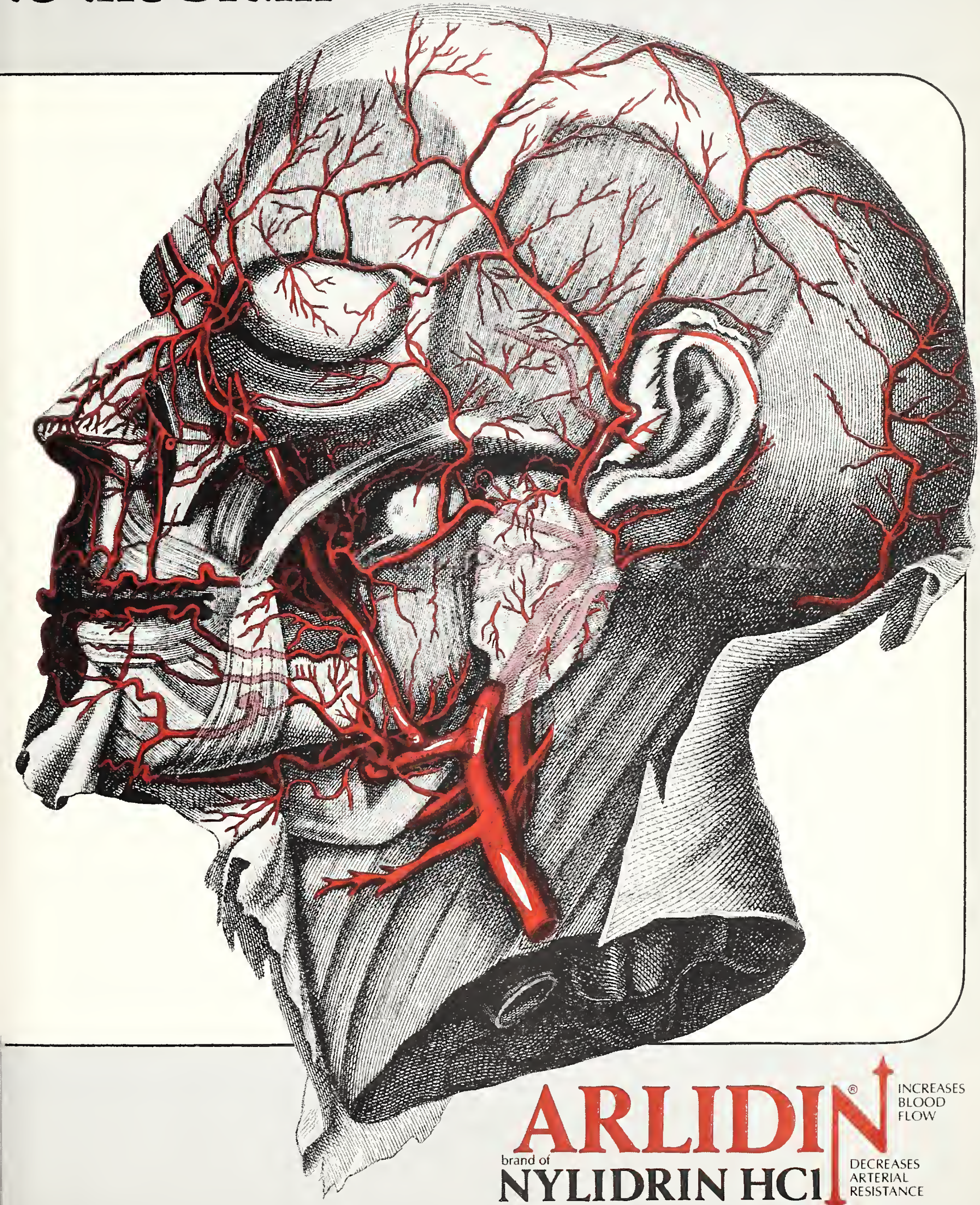

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These findings confirm that amylase can be bound with a high molecular weight protein, possibly an immunoglobulin, producing a macroamylase and hyperamylasemia. These studies also suggest that dextran is unsuitable for amylase studies.

* * *

Limitations of Peritoneoscopy

WALTER HARVEY JACOBS, M.D., F.A.C.P. AND
BERNELL LANDERS, M.D., KANSAS CITY

From the University of Missouri at Kansas City General Hospital and the Kansas University Medical Center.

More than 60 peritoneoscopy examinations have been performed during the past 36 months. The procedure has proved to be of greater value in demonstrating the nature of a nodular liver, in indicating the presence of metastases to the liver and in elucidating the diagnosis of ascites of unknown etiology. The procedure has been of limited value in elucidating the diagnosis of jaundice when the more conventional studies were unable to establish the cause of icterus.

The procedure was well tolerated by most of the patients. However, numerous minor complications did occur, including pneumo-omentum, subcutaneous emphysema and fever. Two deaths occurred in our series; one due to leakage of a liver abscess that was needled and the other due to complications following the development of biliary peritonitis, also following liver biopsy. Representative photographs of different pathological entities were illustrated.

* * *

Continuous Monitoring of Blood Glucose in Normals and Insulin-Dependent Diabetics

D. N. KLACHKE, M.D., F.C.P.(SA), T. H. LIE, M.D.,
T. W. BURNS, M.D., F.A.C.P., J. WHITAKER, M.D.
AND J. BROWNE, COLUMBIA

From the Endocrine Division, Department of Medicine, University of Missouri School of Medicine

Using a method previously described,[1] we have monitored venous blood glucose continuously for 24 hours in 14 normal subjects, aged 18 to 49 years, and 11 insulin-dependent diabetics, aged 19 to 61 years. The former were on a standard diet; the latter received their prescribed diets and insulin dosages. Exercise was provided three times daily on a treadmill at fixed speed and incline. The degree to which glucose homeostasis was maintained in each subject was estimated by subtracting the lowest concentration of the 24-hour period from the highest. This parameter is termed the "glycemic range" (GR). In the normal subjects, GR varied from 38 to 95 mg%. There was no correlation between GR and age, body weight or family history of diabetes. The diabetics had GR values from 166-245 mg/100 cc. They also showed a much greater fall in blood glucose with exercise (14.3 ± 3.4 mg/100 cc at 2½-degree incline and 18.7 ± 3.0 mg/100 cc at 5 degrees) than did the normals (3.2 ± 1.7 mg/100 cc at 2½ degrees and 4.2 ± 1.1 mg/100 cc at 5 degrees).

The overnight (10 PM to 7 AM) glucose concentrations were relatively stable in six diabetics. In the other five, a nadir occurred between 10:45 PM and 6 AM and was followed by a progressive rise in glucose concentration.

This variability in the timing of the nadir indicates that it would be unlikely to detect it by intermittent sampling.

Bibliography

1. Diabetes, 14:186, 1965.

* * *

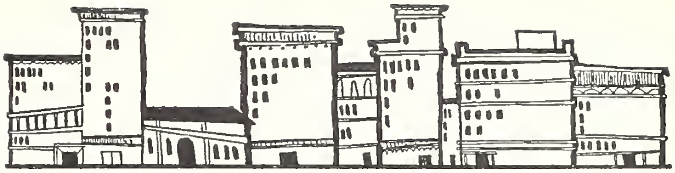
Calcium Absorption During Peritoneal Dialysis

J. J. GARRETT, M.D. AND R. E. CUDDIHEE, M.D.

From the Department of Internal Medicine, St. Louis University School of Medicine

Thirteen adult patients with chronic renal insufficiency were studied as to calcium balance during peritoneal dialysis. Calcium kinetics are depicted as a three-compartment system involving the (1) intraperitoneal, (2) intravascular and (3) exchangeable pools. On the average, 13% of instilled calcium is absorbed or infused across the peritoneal membrane. Approximately 1% of this can be accounted for by the changes in plasma concentration. About 12% or 500 mg must, therefore, diffuse into an "exchangeable pool," which presumably includes skeletal surfaces and gastrointestinal secretions as well as extracellular fluid reservoirs. The authors conclude that the most important determinant of calcium absorption appears to be the predialysis serum calcium levels and the net fluid loss during dialysis.

From the Medical Schools



WASHINGTON UNIVERSITY

The School of Medicine will present its Alumni Day Program on June 6 with Marshall B. Conrad, M.D., of St. Louis, President-Elect, presiding.

Opening remarks and welcome will be extended by William H. Danforth, M.D., Vice-Chancellor for Medical Affairs at the University; Kenton King, M.D., Dean of the School of Medicine; and Robert E. Frank, Director of Barnes and Allied Hospitals.

The morning program will present lectures by the following alumni: Dr. Ronald G. Evens, Chief Resident, Department of Radiology, Washington University School of Medicine; Dr. Morris Reichlin, Associate Professor of Medicine and Research Association Professor of Biochemistry, State University of New York, Buffalo; Dr. Kenneth Shulman, Professor and Director, Division of Pediatric Neurological Surgery, Albert Einstein College of Medicine of Yeshiva University; and Dr. Marvin Stein, Professor and Chairman, Department of Psychiatry, State University of New York, Downstate Medical Center, College of Medicine.

Dr. Virgil Loeb, Jr. of St. Louis, the 25th Reunion Chairman, will preside at the afternoon session which will present alumni-lecturers, Dr. David E. Smith, Professor and Chairman, Department of Pathology, University of Virginia School of Medicine; Dr. Robert D. Lange, Research Professor and Assistant Director of Research, University of Tennessee Memorial Research Center; Dr. Charles L. Eckert, Professor and Chairman, Department of Surgery, The Albany Medical College of Union University; Col. Robert M. Hardaway, III, MC, Commanding Officer, Frankfort Medical Service Area, U. S. Army in Germany and the 97th General Hospital; Dr. Robert A. Phillips, Director, Pakistan-SEATO Cholera Research Laboratory and 1967 Albert Lasker Medical Research Award Recipient; and Dr. Fred C. Reynolds, Professor of Orthopedic Surgery, Washington University School of Medicine.

"Is it contagious, Doctor?"

Estelle Brodman, Ph.D., librarian of the medical school and professor of medical history in anatomy, was invited to deliver a lecture at the Third International Congress on Medical Librarianship in Amsterdam, Holland on May 7.

Dr. Brodman, who also presented papers at the first congresses, spoke on the training of medical librarians in the United States by The Medical Library Association. Earlier congresses were held in London in 1953 and in Washington, D. C., in 1963.

MISSOURI UNIVERSITY

Dr. Thomas P. Weil, director of graduate studies in health services management at the University of Missouri-Columbia, has been appointed a visiting professor at the School of Hospital Administration, University of South Wales, Sydney, Australia, under a W. K. Kellogg Foundation grant.

Dr. Weil came to the University of Missouri-Columbia in the summer of 1966 to direct the program in health services management, a joint educational program of the School of Medicine and the School of Business and Public Administration. A graduate of Yale University's program in hospital administration and the University of

Michigan's program in medical care organization, he is the third American to be appointed a visiting professor in the Australian program.

The National Aeronautics and Space Administration (NASA) has awarded $81,666 to the School of Medicine-Columbia for the continuation of a project which monitors the blood of astronauts. The principal investigator for the project, Dr. Charles E. Mengel, is chairman and professor of medicine. He has worked since the Gemini series studying the effects of a changed environment on the blood of astronauts.

Some of the country's leading geneticists paid tribute to the memory and work of Lewis J. Stadler, one of the most outstanding professors of genetics at the University of Missouri-Columbia in the first half of this century, with a symposium on "Basic Genetics" held on the Columbia campus on May 9-10.

The program comprised an informal get-together of guest and faculty geneticists, other faculty members and students in the Memorial Union the afternoon of May 9; a series of lectures and discussions by guests and faculty lecturers in the Fine Arts Auditorium on May 10; and a closing dinner on May 10.

An international leader in the field of chest surgery, Lord Brock, director of the department of surgical sciences for the Royal College of Surgeons of England, presented the Third Annual W. Alton Jones Lecture at the School of Medicine-Columbia on May 14. Presented in conjunction with the Spring Clinical Conference on Pulmonary Disorders, Lord Brock spoke about "Empiricism and Method in Medicine."

The lectures are made possible by an endowment presented to the University of Missouri-Columbia School of Medicine by the W. Alton Jones Foundation in 1965. In addition to the lectures, the endowment povides for the W. Alton Jones Chair for a Distinguished Professor of Surgery. Dr. Marion S. DeWeese, chairman of the department of surgery, has held the distinguished professorship since 1965.

Lord Brock's lecture was presented at the close of the first day of the Spring Clinical Conference, which was divided into four main discussion areas—"Acute Inflammatory Diseases," "Chest Trauma," "Chronic Respiratory Diseases" and "Bronchogenic Carcinoma."

The School of Medicine recently has received more than $50,000 to broaden the scope of its medical education program. These funds will help in the further development of a course combining the disciplines of medicine and the social sciences.

Under a $53,328 grant from the National Fund for Medical Education, sociologists, anthropologists and a specialist in urban studies are to teach side-by-side with the existing medical staff.

Developed during the last three years, this interdisciplinary course, "Human Ecology and Behavioral Science," is one of many changes instituted by the medical school since 1964 when an entirely new curriculum was begun. The course rotates each of 100 first year medical students through four major areas. Special emphasis is placed on interviewing and observation throughout the community.

ST. LOUIS UNIVERSITY

Ten medical students participated in the fourth annual student research forum sponsored by the Alpha Omega Alpha honor society at the School of Medicine on April 30. About 70 medical students are engaged in research projects at the School with about 45 projects supported by a sum of $33,750 awarded through a general research support grant to the school from the United States Public Health Service. Other student research is supported by other sources. The research papers presented at the forum were chosen by a student research fellowship committee headed by Dr. E. A. Doisy, Jr., chairman. Other committee members were Drs. Subir K. Bose, George Gantner, Richard Dames and John

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Tybatran (tybamate) has been useful in the control of agitation in the aged and in the alleviation of some of the adverse emotional accompaniments of senility.

Tybatran (tybamate) has been used with benefit in the treatment of depressive symptoms associated with anxiety and other symptoms of psychoneuroses. However, it is not indicated for primary treatment of depressive states. It is not an antipsychotic agent, although it has been used as adjunctive therapy in some psychotic patients.

Dosage: One 350 mg. capsule, 3 times daily and two at bedtime is suggested as the adult starting dose. Adjust to suit individual requirements. Daily doses above 3000 mg. are not recommended.

Contraindications: Known hypersensitivity to tybamate. Since no studies have been done with this drug in human pregnancy, it should not be used in pregnancy unless the potential benefit outweighs the risk.

Warnings: Administer cautiously to patients receiving phenothiazines or other CNS depressants or having history of convulsive seizures (See Adverse Reactions). Consider possibility of additive actions with alcohol or other psychotropic agents, particularly phenothiazines or MAO inhibitors.

Precautions: Avoid abrupt withdrawal after prolonged use, although withdrawal symptoms have not been reported to date. Exercise caution in addiction-prone individuals. If symptoms of hypersensitivity occur, discontinue at once and initiate appropriate symptomatic treatment. Avoid activities requiring optimal mental alertness if drowsiness or vertigo are present. As with any new drug, use cautiously in patients with history of drug allergies, blood dyscrasias, and hepatic or renal disease; periodic measurements of hepatic, hematopoietic and renal function should accompany prolonged and/or high doses.

Adverse Reactions: Most frequent reactions, rarely requiring discontinuation of tybamate, include drowsiness, dizziness, nausea, insomnia, and euphoria. There have been a few reports of skin rash, urticaria, and pruritus. Rare side effects include hyperactivity, fidgetiness, flushing, and tachycardia, suggesting excessive stimulation; also ataxia, unsteadiness, confusion, feeling of unreality, "panic reaction," fatigue, headache, paresthesias, vertigo, gastrointestinal disturbances, glossitis, and dry mouth. Grand mal or petit mal seizures have been reported in a few hospitalized psychotic patients receiving tybamate (up to 6000 mg. daily) together with phenothiazines and other psychotropic agents, but not with tybamate alone. Consider the possibility of rare, serious adverse reactions such as may occur with the related drug, meprobamate. If excessive amounts are ingested, gastric lavage and symptomatic therapy, including central stimulants as necessary, are recommended. Before prescribing, consult package circular.

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J. Garrett, all members of the School of Medicine faculty.

A $10,000 senior clinical traineeship to cancer control from the United States Public Health Service has been awarded to Dr. Alphonse J. Sequitieri, who is completing his residency in medicine at the St. Louis University Hospitals. The training program is under the direction of Dr. G. O. Broun, Jr., associate professor of internal medicine and director, Section of Hematology.

Dr. George H. Zimny, professor of psychology in psychiatry, participated in a "Student-Generated Use of Television in Self-Learning" at the 11th annual meeting of the Council on Medical Television in Kansas City on April 24-26.

Dr. Ronan O'Rahilly, professor and chairman, Department of Anatomy, St. Louis University School of Medicine, is co-author of *Anatomy, a Regional Study of Human Structure*. It is the third edition of a textbook being offered in Schools of Medicine and Dentistry.

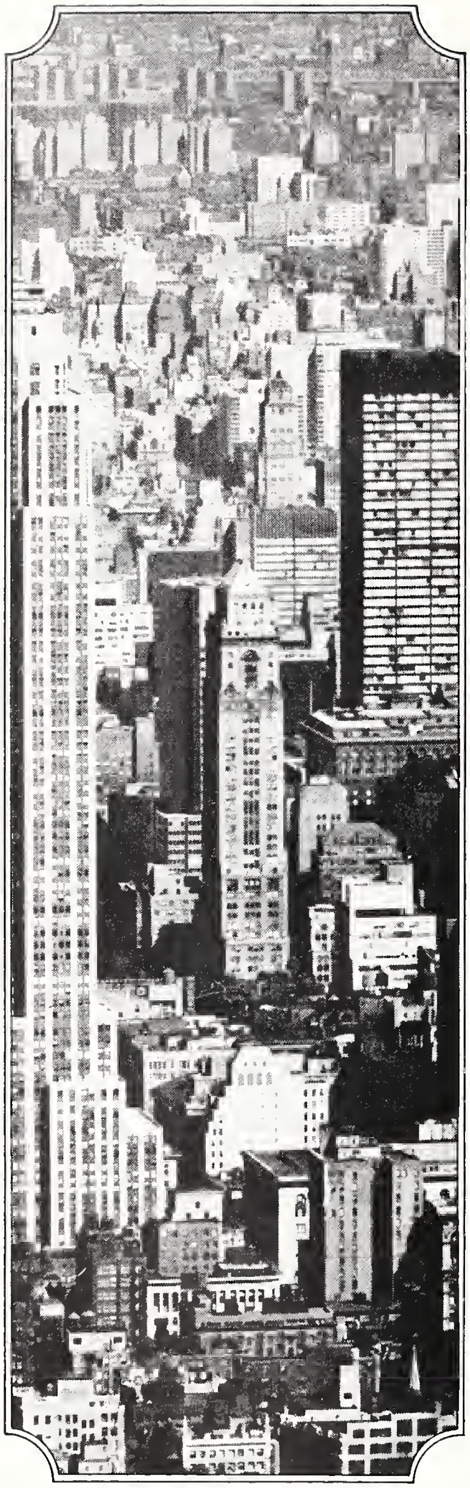
Dr. Kenneth R. Smith, Jr., chairman, Section of Neurosurgery, presented a paper on "Ultrastructure of Brain Tumors Grown in Tissue Culture" before the American Association of Anatomists in Boston on April 3.

Several members of the Department of Anatomy attended the Annual Meeting of the American Association of Anatomists which was held in Boston, April 1-4. Papers were presented by Dr. U. K. Hwang, associate professor of anatomy; Dr. K. J. R. Naidu, assistant in anatomy; and graduate students: Miss M. Cooper, Mr. J. Shea, and Mrs. W-h Yu.

Dr. Ralph L. Biddy, associate professor of psychiatry at the School of Medicine and chief of the P & N Service, participated in an Institute of Administration of Extended Care Facilities sponsored by the VA Center, Los Angeles. He also was the guest speaker at the Washington University School of Medicine Psychiatry Child Guidance Clinic.

The annual St. Louis University medical alumni reunion held in conjunction with the American Medical Association Convention will be on July 14, from 5 PM to 7 PM in the Savoy Room, The Plaza, 5th Avenue at 59th Street, New York.

Dr. Efraim Racker, chairman of the department of biochemistry and molecular biology at Cornell University, delivered the annual Wendell H. Griffith Memorial Lecture which was sponsored by the Edward A. Doisy Department of Biochemistry at the St. Louis University School of Medicine on May 9. The lecture honored the late Dr. Wendell H. Griffith who joined the St. Louis University faculty in 1923. While in the department, he pioneered in studies of experimental nutrition for 24 years.



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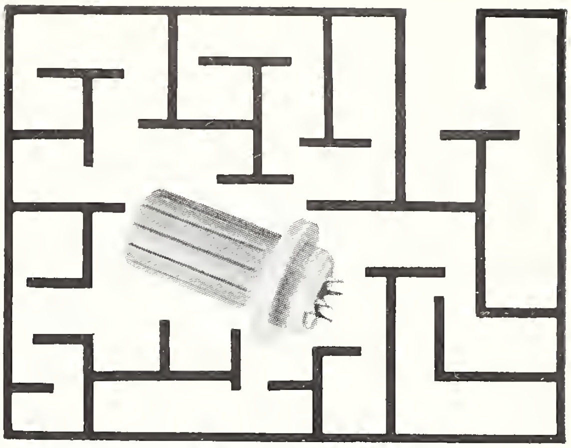
The book contains a wealth of information about medical schools and their products. A major portion contains tabulations showing the distribution of graduates of each medical school by specialty, field of professional activity, type of practice organization, geographic location and other categories.

Copies are available from the AMA Order Handling Unit at $4.00 each.



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Notes of interest from Here .... and There

Dr. Clinton L. Miller of Lee's Summit has been named "Family Doctor of the Year" by the greater Kansas City Chapter of the American Academy of General Practice. Dr. Miller has practiced medicine in Lee's Summit since 1932, with the exception of four years in the Army in World War II when he earned four campaign stars in the European Theater. He was medical officer for all major Nazi war criminals from their time of capture until trial at Nuremberg. Dr. Miller is on the staff at St. Luke's, Baptist Memorial and Research Hospitals in Kansas City. He started a partnership with **Dr. Lyle B. Knight** in 1946 which led to the present Lee's Summit Clinic.

The following officers were elected recently by the regular staff of Bothwell Hospital in Sedalia: Chief of Staff, **Dr. T. J. Hopkins**, replacing **Dr. D. C. Proctor**; Vice-Chief of Staff, **Dr. A. R. Maddox**, replacing **Dr. T. S. Hopkins.** Secretary-Treasurer **Dr. B. L. Boatright** was reelected. **Dr. D. R. Edwards** was elected to the executive committee replacing **Dr. Joe Maunders. Dr. R. A. Enochs** was reelected to the committee.

Dr. Charles E. Hellweg, Mt. Vernon, has retired from his position as assistant superintendent at the Missouri State Sanatorium, a position he has held for 23 years. Dr. and Mrs. Hellweg plan to travel during his first year of retirement.

Dr. George P. Williams, Kansas City, has been chosen president-elect of the Kansas City Academy of General Practice. **Dr. Paul Young** has been elected president succeeding **Dr. Claude C. Farley.** Other newly-elected officers of the Academy are **Drs. M. D. Durnell,** treasurer and **Paul Revare,** secretary. Directors elected for three years are **Drs. David J. Elias** and **I. W. Kimball;** for two years, **Donald A. Potts** and **Leo F. Cooper;** and for one year, **Harold R. Lyddon** and **Albert D. Eshelman.**

John F. Bergmann, M.D., St. Louis, recently appointed consultant to the department of adolescent services at St. Vincent Hospital, Normandy, has been appointed medical director of the hospital. He succeeds **Dr. S. R. Banet,** who has been medical director since 1966.

Dr. A. P. Capetti, who has practiced medicine in the Aurora and Crane community for almost three decades, retired from his practice on June 1. Dr. Capetti, a native of Boston, established a practice in Crane in the 1940's and later moved to Aurora, constructing the Capetti Clinic Building. For a short time he discontinued his practice in Aurora, but returned later to become associated with the late Dr. A. J. C. McCallum in the McCallum-Capetti Clinic. He again returned to Crane when that community was unable to secure the services of another physician.

Allen D. Smith, executive secretary of the Jackson County Medical Society, has been elected president of the **Kansas City Press Club.** Mr. Smith formerly served as an executive assistant to **Mr. Raymond McIntyre,** executive secretary of the MSMA. He is a graduate of the University of Kansas School of Journalism and a veteran of 15 years in radio and television newscasting in Kansas City.

Dr. Richard L. Sutton, Jr., Kansas City, was elected Vice-President of the American Dermatological Association at the ADA's 89th Annual Meeting in Scottsdale, Ariz., in April. The Association's new President is **Clarence S. Livingood, M.D.,** of Detroit, Mich.

A collection of water color paintings by **Dr. Sidney W. Scorse,** Joplin, were displayed at Spiva Art Center in the Fine Arts Building at Missouri Southern College in April. Dr. Scorse, who has been painting for 40 years, has studied with Ed Whitney, Elliott O'Hara, Norman Rockwell and Frank Dorn. His works have been exhibited in Calcutta, New Delhi, London, Chicago and New York. He has won numerous awards from the American Physicians Art Association. In 1963, one of his paintings received the Famous Artists award and was selected from 8,000 to travel all over the country with 56 other paintings. Dr. Scorse also has had a showing at the Truman Library and the College of the Ozarks at Branson.

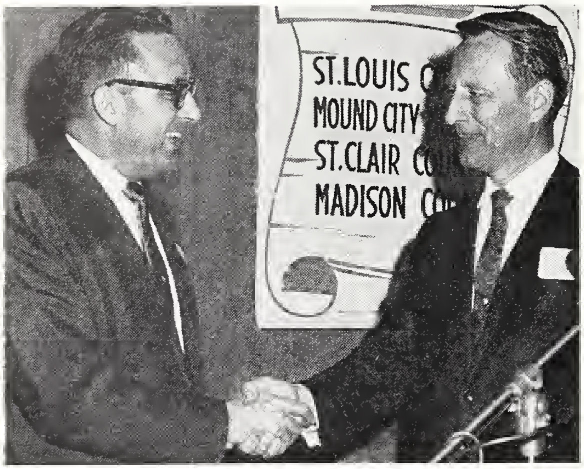
Dr. and Mrs. K. Herbert Huber have purchased a brick building on East Main Street in Richmond. Dr. Huber, who has had office space in the Cook building, has moved his office to the newly-purchased building.

Dr. James M. Whittico, Jr. of St. Louis, president of the National Medical Association, was featured in the cover story of the April 21, 1969 issue of *Modern Medicine*. Selected by the medical journal editors as their "Contemporary" for that issue, Dr. Whittico specializes in general surgery and maintains a private practice at the Mound City Medical Center. He also is an instructor in clinical surgery at St. Louis University School of Medicine, director of the surgical tumor clinic at Homer G. Phillips Hospital, St. Louis police surgeon and medical consultant to the Missouri state departments of Vocational Rehabilitation and Health, Education and Welfare.

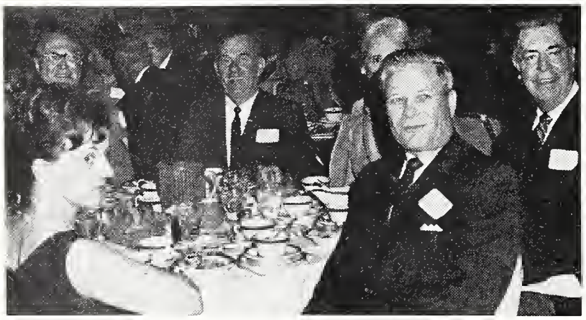
Dr. William Soper, a graduate of the University of Missouri-Columbia, who is completing his internship at Minneapolis General Hospital, is expected to begin general practice in Excelsior Springs in July. A native of Plattsburg, he will be associated with **Dr. Eugene Robichaux** and **Dr. George E. Sanders** in offices at 116 South Street.

Six physicians of the staff of the Jewish Hospital of St. Louis have been promoted to the rank of associate professor of clinical medicine by Washington University in recognition of their teaching contributions to both the Jewish Hospital and Barnes Hospital. The are **Drs. Benjamin Borowsky, Robert S. Mendelsohn, Sidney Jick, Alvin S. Wenneker** and **Herbert Zimmerman.**

'Astronauts' Doctor' Speaks in St. Louis



Dr. Charles Miller, President of the St. Louis County Medical Society, congratulates Dr. Berry upon his interesting presentation. Dr. Berry took his listeners on a "verbal and photographic trip to the moon" as he described the goals and accomplishments of the U. S. flights in space.



St. Louis County Medical Society members Dr. James C. Sisk *(extreme left)* and Dr. Thomas A. Coates *(extreme right)* served as hosts to Representative Vincent Kelley of the 34th District *(second from left)* and Representative Stephen Burns of the 42nd District *(second from right)*.

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Dr. Charles A. Berry, the Astronauts' Doctor, was the featured speaker at the Third Annual Metropolitan Area Medical Legislator-Physician dinner in St. Louis on April 11.

Dr. Charles A. Berry, physician to the U. S. Astronauts, was the featured speaker at the Third Annual Metropolitan Area Medical Legislator-Physician dinner in the Gold Room of the Sheraton-Jefferson Hotel in St. Louis on April 11.

A record crowd of physicians, lawmakers, their wives and guests attended the annual event which was sponsored by the Mound City (Mo.) Medical Forum, Madison County (Ill.) Medical Society, St. Clair (Ill.) Medical Society and the St. Louis County Medical Society.

Dr. Berry is from Houston, Tex. He used both slides and movies in his presentation of facts concerning the present and future of space exploration and travel. He reported in detail on the vital statistics gained from the many tests made during space flights concerning the medical aspects of space travel and its effects upon the human being. The physicians and legislators also were privileged to view unusual slides that the astronauts made of the earth, the moon and their working activities within the space capsule during flight.

Following his presentation, Dr. Berry met with many friends who were present. Some had attended school with him or had worked with him during the years he was moving toward the unusual position he now fills.

Dr. Charles Miller, President of the St. Louis County Medical Society, presided at the dinner.

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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WILLIAM SHIEBER, M.D. *and* **RICHARD B. MILLER, M.D.,** *St. Louis*

Spontaneous Abdominal Aortic Aneurysm—Vena Cava Fistula

Case Report

Rupture of an arteriosclerotic abdominal aortic aneurysm, when untreated, is uniformly fatal. Even when treatment is prompt and skillful, ruptured aneurysms are attended by a high mortality. The usual site of rupture is into the retroperitoneal space. Occasionally, an aneurysm will rupture primarily into the free peritoneal cavity; more frequently, however, break-through of a previously contained retroperitoneal rupture through the posterior peritoneal wall will account for free intraperitoneal blood. Rarely, an aneurysm will rupture into the gastrointestinal tract. The most unusual site for rupture of an abdominal aortic aneurysm is into the adjacent vena cava.

Successful repair of a spontaneous abdominal aortic aneurysm-vena caval fistula has been reported in 20 patients.[1-15] Eisman was the first to publish such a report in 1955,[5] although Cooley, in 1958, reported a successful repair performed in December, 1954[4] (antidating Eisman's case). Previous attempts at repair had all been unsuccessful. Despite the infrequency of this lesion, its importance is related to the fact that it is curable. The present report illustrates the feasibility of correct preoperative diagnosis and successful repair.

Case Report

A 60-year-old white man, a highway engineer, was admitted to the Jewish Hospital of St. Louis on April 15, 1967. He complained of abdominal and lower extremity swelling of five weeks duration. During this five-weeks period, the patient had progressive abdominal and lower extremity swelling, shortness of breath with exertion, general malaise and a 35 lb weight gain. For three weeks prior to admission, he had been treated with digitalis and diuretics without improvement. There was no previous abdominal surgery or trauma. The patient was a heavy drinker of beer and whiskey, had a known duodenal ulcer and an uncharacterized chronic anemia which had necessitated blood transfusions on several occasions in the past.

Physical examination revealed an elderly, obese white man who was able to lie flat in bed with no distress. Pulse rate was 100 per minute and regular;

A case report of the successful repair of a spontaneous abdominal aortic aneurysm-vena caval fistula. Despite the infrequency of this lesion, its importance is related to the fact that it is curable. In addition to reviewing the signs and symptoms of both acute and chronic aorta-caval fistulae, this report illustrates the feasibility of correct preoperative diagnosis and repair. The authors are from the Departments of Surgery and Medicine, Washington University School of Medicine and the Jewish Hospital of St. Louis.

blood pressure was 110 mm Hg systolic, 75 mm Hg diastolic; respiration rate, 20 per minute; temperature, 99F (37.2C). The conjunctivae and nail beds were pale. The chest was clear to percussion and auscultation and the heart was not enlarged. A grade 3 over 6 systolic ejection murmur was heard over the entire precordium, being loudest at the aortic area and radiating to the neck. The abdomen was protuberant with marked venous distention and shifting dullness. The liver was palpable 4 cm below the right costal margin. A pulsatile mass was present in the upper abdomen; its left border was indistinct and the right border was approximately 7 cm. to the right of the midline. A loud continuous bruit was heard over this mass. There was marked pitting edema of both lower extremities. Femoral pulses were both normal, but no pulses could be felt distally.

Laboratory data on admission included a hemoglobin value of 8.0 gm/100 cc and a hematocrit value of 25%. The differential cell count was normal. Urinalysis was within normal limits. Serum electrolytes were found to be sodium, 130 mEq/liter; potassium 5.0 mEq/liter; chlorides, 95.6 mEq/liter. Serum creatinine was 1.2 mg/100 cc and BUN was 30 mg/100 cc. Stool contained occult blood. Serologic tests for syphillis were nonreactive. The electrocardiogram revealed a right bundle branch block. On upper gastrointestinal series, a deformed duodenal bulb and calcification suggestive of a large abdominal aortic aneurysm were seen.

The patient was initially believed to have cirrhosis of the liver, congestive heart failure and an abdominal aortic aneurysm. He was treated with digitalis, salt restriction and diuretics, but these did not relieve his edema, dyspnea or abdominal distention.

Venous pressure in the upper extremity was 13 mm H_2O, and in the abdominal wall veins were 26 cm of saline. Arm to tongue circulation time (decholin) was 12 seconds. Blood volume by RISA dilution method was 7.26 liters (estimated normal, 5.6 liters). Because of these findings, the possibility of an aorto vena cava fistula with high output cardiac failure was considered.

The diagnosis was confirmed by arteriography. A transaxillary aortogram revealed a large abdominal aortic aneurysm with immediate filling of the inferior vena cava (Fig. 1).

At operation on May 5, 1967, the anterior abdominal wall veins bled with a pulsatile flow. The aortic aneurysm-vena caval fistula was readily apparent with arterial blood visibly streaming into the vena cava over which a palpable thrill was felt. The aortic aneurysm measured 9 cm in greatest lateral dimension. The aorta was exposed and clamped proximally above the aneurysm (just below the renal arteries) and both iliac arteries were clamped. The vena cava was occluded both above and below the fistula to prevent embolization. The aneurysm, entered through its anterior aspect, exhibited a large defect, 65 mm x 15 mm, in the right posterior-lateral wall opening into the adjacent vena cava. Most of the opening was occluded with thrombus. This thrombus was removed and the fistula was closed with a running 3-0 Tevdek suture, maintaining the continuity of the vena cava. The aneurysm was resected leaving the posterior wall in place. A tightly-woven dacron bifurcation graft was inserted.

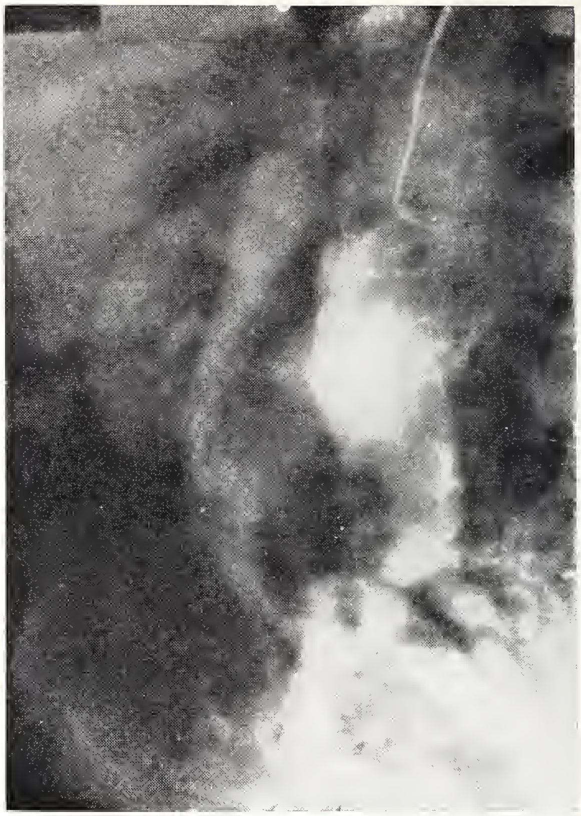

Fig. 1 Transaxillary aortogram shows dye passing immediately from the aortic aneurysm into the inferior vena cava, indicating an arterio-venous fistula.

Postoperatively, the patient did well. There was a spontaneous postoperative diuresis with a 23 lb weight loss in ten days. Blood volume decreased within two weeks to 6.65 liters from its preoperative level of 7.26 liters. Abdominal wall venous distention disappeared. Only minimal ankle edema persisted. The patient returned to work and has remained asymptomatic for the two years since surgery.

DISCUSSION

Aorto-vena caval fistulae can be divided into two clinical types (acute and chronic) based upon the duration of symptoms and the rapidity with which their course progresses. Acute cases present with abrupt onset of severe abdominal pain, hypotension, diaphoresis, syncope and death within minutes to hours. They show the findings of an acute, massive, intra-abdominal catastrophic hemorrhage. This is the usual pattern of any acute rupture of an abdominal aortic aneurysm with sudden massive blood loss.

The less frequent type of aorto-vena caval fistula is the chronic type. Such a fistula may be present for weeks to months and is usually associated with abdominal pain, progressive swelling of the lower extremities, distention of the abdominal veins which fill from below, presence of a palpable aneurysm with a loud bruit and, frequently, a thrill. These findings, plus evidence of high output, right-sided heart failure unresponsive to cardiotonic medication, are the major clinical evidences of the chronic aorto-vena caval fistula.

The key to successful treatment is the recognition of the presence of the aorto-vena caval fistula. Once the entity is considered, arteriography (as illustrated by this case) can establish the diagnosis. The objectives of treatment are to correct the hemodynamic abnormalities secondary to the fistula, to remove the aneurysm and to restore vascular continuity. It is of importance during the operative procedure to prevent dislodgement of the thrombus that may line the aneurysm into the vena cava. Massive pulmonary embolism and death have been reported. It is important, therefore, to occlude the vena cava proximal and distal to the fistula to prevent egress of the thrombotic material.

SUMMARY

A case of spontaneous chronic rupture of an abdominal aortic aneurysm into the vena cava is presented. Arteriography established the diagnosis. The signs and symptoms of aorto-caval fistulae, both acute and chronic, are reviewed. Successful repair of the lesion was followed by the prompt correction of the hemodynamic abnormalities.

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A condensed edition of the best-selling book, "Your Heart Has Nine Lives," by Alton Blakeslee and Jeremiah Stamler, M.D., has been reprinted for the American Heart Association. It is intended for physician-distribution to patients.

Written in a light and entertaining style, the 31-page booklet covers some of the common habits and health conditions which may increase the risk of heart disease and points out ways to counteract such risks. It contains some amusing illustrative cartoons.

Copies of the reprint may be obtained through the Missouri Heart Association, 601 E. Broadway, Columbia, Mo. 65201.

H. D. BROWN, Ph.D., S. K. CHATTOPADHYAY, M.S.,
A. B. PATEL, M.S., R. P. PUGH, M.D., B. MATTHEWS, B.S., ***and***
S. N. PENNINGTON, Ph.D., ***Columbia***

LDH Isozyme Activities in Subcellular Fractions of Liver and Hepatoma

This paper presents the results of a study which was designed to find subcellular basis for the measurable differences in the variation in lactate dehydrogenase levels in individuals at different times. Experimental animals bearing hepatoma were used in the research. The authors are from the Cancer Research Center. This research was supported by USPHS research grant CA 08023-04.

Measurements of enzyme activities in serum and urine are routinely applied to the diagnosis of disease. There has been no single procedure developed which provides a corollary between cancer diagnosis and these laboratory procedures common in other phases of medicine. Lactate dehydrogenase (E.C. 1.1.2.7)[*] activity (LDH) has been reported to correspond with neoplastic change.[1–3] It is desirable, however, to extend the basis in animal studies upon which the useful interpretation of clinical LDH data may be made. It has been demonstrated that lactic dehydrogenase, although clearly related in certain of its characteristics to some forms of malignancy, is, nonetheless, by the conventional standards of measurement erratic in this relationship. The variation in LDH levels appears to be a function of both individual differences and emotional states of individuals at different times. The present study has been designed to find a subcellular basis for measurable differences. Experimental animals bearing hepatoma have been used.

There has developed extensive literature describing properties of the enzyme, lactate dehydrogenase, as a catalyst having interesting physical as well as kinetic properties.[4] The enzyme appears to represent a rate-limiting, control point in glycolysis and is widely distributed in animal tissues,[5] with its highest levels of activity having been reported in cardiac and skeletal muscle.

Goldman *et al*[6] have interpreted changes in lactate dehydrogenase activity to represent a part of the general alteration in glycolytic rate associated by Warburg[7, 8] with some types of neoplasia. However, basic information about the mechanism of elevation of LDH in tumors is incomplete. The LDH system, it has been suggested, is potentially a target for therapy design based upon difference in malignant and normal growth. Bierman and coworkers[1] have reported elevated levels of serum LDH activity in patients with several types of neoplastic diseases. The observations have aroused interest because the LDH system, measurable in serum if it reflects tumor development, may have potential utility for diagnosis of malignancy. Electrophoretic separation of isozymes of LDH from malignant tissue also has gained considerable prominence in the oncological literature. The enzyme exists in several forms.[4, 9] There have been a number of reports[6] of an increase in activity of the LDH isozyme IV and V in human malignant tissues.

In the present study, relationships of LDH activity have been considered as a function of the subcellular molecular populations of the enzyme in liver and hepatoma and in serum of the Buffalo rat.

Materials and Methods

Buffalo rats with hepatomas in muscles of both hind legs and of identical normal stock were used. The animals were supplied with palpable tumors. Upon arrival, they were placed in separate cages in an isolated temperature-controlled room. Commercial "chow" and water were supplied *ad libitum*. The first group of animals was used a week after the date of arrival and the others in sequence during a three-month period.

Animals bearing tumor type 7777 exhibited considerable difficulty in walking. The tumors were very large, averaging a wet weight of 7 gms when removed from the animal. Grossly, there was little difference between these tumors and the type 7794A (5 gm average wet weight). The slowest growing type (9618A, 3 gm average wet weight) was small, and animals bearing this tumor were distinguished from healthy animals only by palpation. Characteristics of these types have been published.[10, 11]

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[*] Enzyme Commission nomenclature.

Animals were stunned and decapitated immediately. Blood was collected from the severed jugular vein. Liver and tumors were removed within two to three minutes. Muscle tissues attached to the capsule were removed from the tumor which then was transferred to a vessel containing cold 0.1 M Tris, 0.25 M sucrose buffer, pH 7.2. Within five to ten minutes, the tissue was homogenized in 20 volumes of Tris-sucrose buffer in a Waring blender. The slurry was further homogenized in a glass tissue mill with a Teflon pestle. By the use of an ice jacket, the temperature was maintained through all steps of enzyme preparation at 2-6°C.

The slurry removed from the tissue mill was centrifuged, 600 x g, 20 minutes in a refrigerated centrifuge. This pellet was rejected and the supernatant dialyzed for 12 hours against Tris-sucrose buffer with 5 mM Na^2EDTA and Tris-saturated IRC-50 ion-exchange resin. Retentate was centrifuged 20,000 x g for 30 minutes. This pellet was washed three times in Tris-sucrose buffer. The pellet was resuspended in 4 ml of this buffer and used as the source of "nuclear" LDH activity. Supernatants were then centrifuged in 10 ml tubes at 80,000 x g for 30 minutes and the pellets washed (three times) and resuspended in 2 ml Tris buffer. This material was used as the source of mitochondrial LDH activity. Supernatants from the 80,000 x g centrifugation were subjected to a force of 100,000 x g for 70 minutes. Pellets then obtained were resuspended in 2 ml of the Tris-sucrose buffer and were taken as the endoplasmic reticulum fraction. The supernatant from the final centrifugation was used as a soluble fraction (cytoplasmic LDH activity).

Lactate dehydrogenase activity was measured in a reaction mixture containing 0.1 mg of enzyme, 0.1 ml of reduced NAD solution (containing 0.25 mg), 2.7 ml of 0.1 M phosphate buffer, pH 7.4 and 0.1 ml sodium pyruvate (0.25 mg), following the technique of Wroblewski and LaDue.[12] Activity of the enzyme was expressed after measurement of change in optical density as a function of time in International Units per mg of protein.[13]

RESULTS AND DISCUSSION

Total subcellular LDH activities for liver and hepatoma are given in Table 1 and Table 2, respectively. The activities are reported in terms of the fraction of the cytoplasmic value, i.e., the

TABLE 1

LDH ACTIVITY IN LIVER CELL FRACTION RELATIVE TO CYTOPLASMIC VALUES

Type	*20,000 x g*	*80,000 x g*	*100,000 x g*	*Serum*
Normal	0.022	0.815	0.138	—
	0.074	0.053	0.196	—
	0.013	0.162	0.135	0.013
7777	0.151	0.0482	—	—
	0.106	—	—	0.042
	0.239	0.1625	0.173	0.042
7794A	0.124	0.160	0.270	0.026
	0.142	0.719	0.837	0.346
	0.039	0.121	0.146	0.022
9618A	0.205	0.222	0.381	0.049
7288C	0.133	—	0.178	0.072
	0.119	—	0.211	0.143

Activities are in terms of the fraction of the cytoplasmic values, i.e., cytoplasm = 1.0.

TABLE 2

LDH ACTIVITY IN HEPATOMA CELL FRACTIONS RELATIVE TO CYTOPLASMIC VALUES

Type	*20,000 x g*	*80,000 x g*	*100,000 x g*	*Serum*
Normal	0.074	0.815	0.138	—
	0.022	0.053	0.196	—
	0.013	0.168	0.135	0.913
7777	0.85	0.193	—	—
	0.388	—	0.167	0.342
	0.018	0.128	0.127	0.015
7794A	0.117	0.380	0.429	0.040
	0.207	1.258	1.427	—
	0.018	0.111	0.196	0.490
7288C	0.121	—	0.129	0.204
	0.125	—	0.106	0.188
	0.106	—	0.174	0.061
	0.162	—	0.121	0.394
9618A	0.116	0.135	0.179	0.030

Activities are in terms of the fraction of the cytoplasmic values, i.e., cytoplasm = 1.0.

activity of the cytoplasmic fraction was taken as 1.00 for each animal in order to form a basis of comparison for the total number of animals studied.

It appears from the data presented in Table 1 and Table 2, columns 3, 4 and 5, that the mitochondrial (80,000 x g), endoplasmic reticulum (100,000 x g) and serum LDH values fall close to the normal value for all animals regardless of tumor type except for one of the 7794A tumor-bearing animals for whom the values are extremely elevated in all three samples. This is not the case for the nuclear fraction (20,000 x g). The data are given in column 2 of Table 1 and Table 2. The LDH activity in the liver nuclear fraction (Table 1) shows a significant increase relative to the normal values without regard to tumor type. Again, except for one of the 7794A animals, the nuclear fraction LDH is elevated an order of magnitude. Despite scatter of data, which is characteristic of LDH, the same trend is evident in the nuclear fraction of all tumors. Here, too, the elevation of LDH in the nuclear fraction approaches an order of magnitude for all hepatoma types relative to normal liver. Thus, it would appear that the LDH activity of the liver from hepatomous animals closely follows the LDH activity of the hepatoma itself, particularly with respect to the nuclear fraction.

Serum differences in these organisms, although small, appear to exist, nonetheless. What is more striking in analysis of the data, however, is that if the fraction of cell material from liver and from the hepatoma itself is taken as it refers to the cytoplasmic level, then a constant difference appears. The serum variation in total lactate dehydrogenase activity which one sees in certain types of human malignancy referenced to this animal system may indicate a change in the nuclear cytoplasmic ratio rather than a change in the overall levels of all members of the molecular pool. In consequence, extrapolating from this conclusion, one must expect that serum differences, reflecting a change primarily in the nuclear fraction of the cell and not in other subcellular populations of the hepatoma, will be very small. It would appear hazardous, upon the basis of this animal system, to expect serum lactate dehydrogenase to serve as a consistent and specific diagnostic tool. Although where the methodology is rigorous and of high enough resolution to reflect small differences, the use of serum LDH as a diagnostic aid in neoplasia may be fruitful.

The ultimate meaning of subpopulation differences in LDH in neoplasia has not been approached. It is reasonable to suggest that the cell nucleus in the tissue studied differs in the character of LDH activity as a function of neoplasia.

Summary

Serum differences in lactate dehydrogenase activity, although small, appear to exist when normal and hepatomatous animals are compared. Serum differences reflect a change primarily in the nuclear fraction of the cell and not in other subcellular populations of the hepatoma. Where the methodology is rigorous and of high enough resolution to reflect small differences, the use of serum LDH as a diagnostic aid in neoplasia may be fruitful in some instances.

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Carcinosarcoma of the Esophagus

Case Report

Histological examination usually reveals carcinoma of the esophagus to be of the epidermoid type. A tumor consisting of carcinomatous and sarcomatous elements is rare. This report of the esophageal involvement of this tumor demonstrates the importance of adequate biopsy and careful examination of the tissue obtained. The authors state that only 38 similar cases have been reported. Drs. Bardenheier and Maginn are from Unit II (St. Louis University) Surgery Service at St. Louis City Hospital.

Carcinosarcoma of the esophagus is a rare neoplastic tumor with mesodermal sarcomatous and ectodermal carcinomatous elements. Reports of this type of tumor involving the esophagus are few, only 38 cases having been reported.[1–4] Because there is a paucity of information concerning the esophageal involvement of this tumor, we are reporting this case.

Case Report

The patient was a 73-year-old Negro man who was admitted on June 28, 1967 to the St. Louis City Hospital with a two-month history of dysphagia and a 35 lb. weight loss. For one month prior to admission, the patient's intake was limited to liquids. During the last two weeks prior to admission, the patient coughed frequently after swallowing. He did not complain of pain or of retrosternal sticking sensation. His health had been good prior to this admission. Physical examination was not remarkable except for evidence of moderate weight loss. No abdominal masses were palpable and there were no palpable lymph nodes.

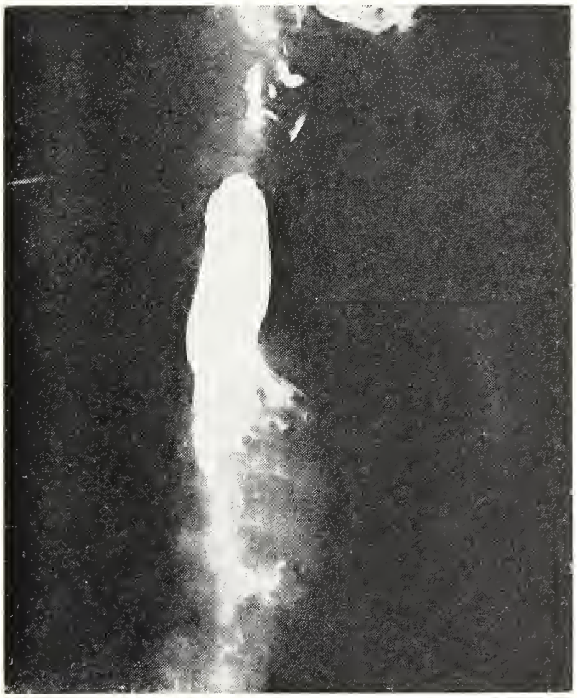

Fig. 1 Hypaque swallow demonstrating polypoid nature of tumor of middle third of esophagus.

Hypaque (50% sodium diatrizoate) swallow (Fig. 1) demonstrated the large polypoid filling defect in the middle third of the esophagus. Later, a fistula between the involved esophagus and the right main stem bronchus was demonstrated at bronchoscopy. Esophagoscopy confirmed the presence of the mass and the fistula, and biopsies were taken at the time. Histopathology examination showed that the tissue obtained from esophageal biopsy demonstrated a tumor which was definitely biphasic in morphology (Fig. 2). There were many nests of atypical squamous epithelium with definite

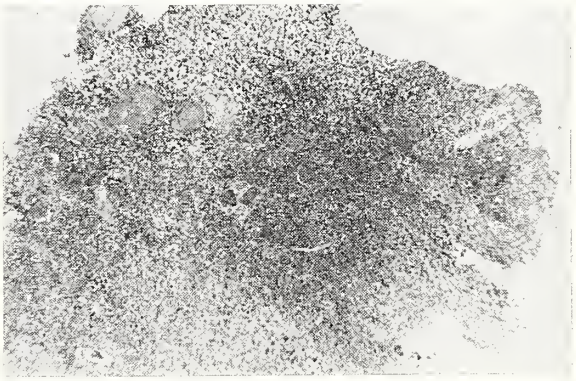

Fig. 2 Photomicrograph of biopsy specimen. (×50) H and E stain.

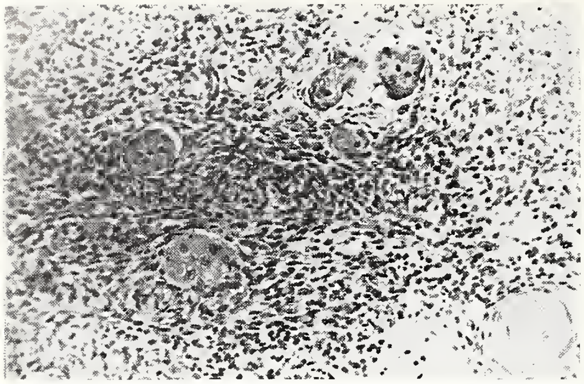

Fig. 3 Photomicrograph of biopsy specimen showing keratinization and spindle cells. (×150) H and E stain.

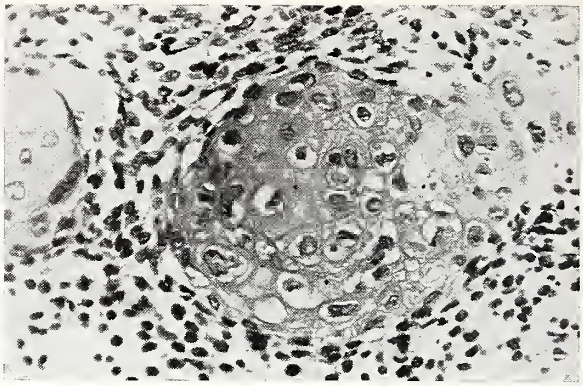

Fig. 4 Photomicrograph of biopsy specimen showing ectodermal and mesodermal components of tumor. (×300) H and E stain.

keratinization (Fig. 3). The stroma of the tumor also was anaplastic with plump, spindle-shaped cells, and occasional bizarre nuclei and mitoses were present in both components (Figs. 4 & 5).

Because of the patient's generally poor condition and the presence of a broncho-esophageal fistula, palliative therapy rather than definitive resection was carried out.

Having confirmed the presence of tumor, a Mouseau-Barbin tube was inserted under general anesthesia. Postoperatively, the patient tolerated a diet of liquids and soft foods. He was relieved of the symptoms of broncho-esophageal fistula. Fig. 5 shows a hypaque swallow following insertion of the Mouseau-Barbin tube demonstrating reconstitution of a clear passage into the stomach.

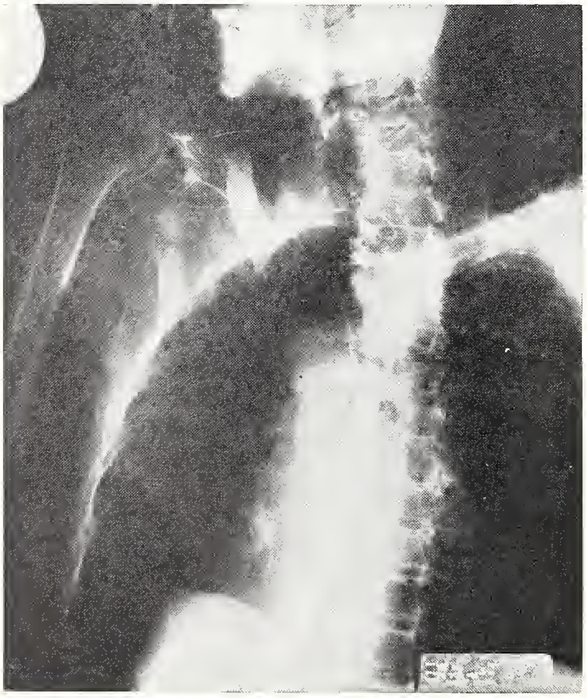

Fig. 5 Hypaque swallow following insertion of Mouseau-Barbin in esophagus.

Discussion

Stout's review of the literature in 1949 showed that in about one half of the 19 cases reviewed, the patients had polypoid tumors which involved the lower half of the esophagus.[1] The remaining tumors were nonpolypoid and of an ulcerating type that was more characteristic of the ordinary squamous epithelial carcinoma of the esophagus. The review by Moore in 1963 of the nine additional cases reported showed a preponderance of the polypoid type, with nine of 11 of the last cases showing this feature.[2] Moore also reports esophagoscopy in six of the cases, but none revealed the true nature of the combined elements in the lesion at the time of biopsy.

Distant metastases were not a frequent occurrence. However, regional node metastases, broncho-esophageal fistula and cord paralysis due to direct invasion were seen in about one half of the reported cases. In the cases reported here, the dual origin of the tumor was noted at biopsy and illustrates the importance of taking adequate, as well as multiple, biopsies at diagnostic esophagoscopy.

Usually, patients with tumors of the esophagus complain of dysphagia and weight loss, as did this patient. Primarily because of the presence of the broncho-esophageal fistula, curative resection was not undertaken and palliation with a Mouseau-Barbin tube was accomplished.[5] Following insertion of the tube, the patient could swallow liquids and soft foods without difficulty. Coughing and sputum production were alleviat-

(Continued on page 426)

A Roentgen Exhibit

Acquired Colon Stenoses

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Of the dozens of varied lesions capable of producing intestinal constriction, two of the most uncommon categories are illustrated in this roentgen exhibit. Stenoses secondary to *extrinsic* processes are quite rare. Volvulus and peritoneal adhesions ordinarily cause acute surgical crises. Internal or external incarcerating hernias may chronically constrict bowel loops, however. Three cases typifing *traumatic* stricturing are rarities. In each instance, the nonspecific stenotic complication was readily diagnosable upon correlation with the prior medical history.

EXTRINSIC STENOSES

I. Postsurgical Adhesions

Roentgenologically, the stenotic lesion of the proximal sigmoid (arrow) in Fig. 1 is a benign nonobstructive stricture. Its characteristics, however, are nonspecific: it is concentric, its extremities commence abruptly, its margins are smooth. No coexistent bowel disease was recognized.

The 25-year-old woman was an unreliable historian complaining of chronic inferior abdominal pain, dizziness, nervousness, suicidal impulses, etc. She maintained that a hysterectomy had been performed elsewhere two years earlier. Neither current physical nor roentgen findings warranted exploration.

Readmission 11 days later was necessitated by obstipation with progressively severe abdominal pain. An admission scout film disclosed prestenotic barium retention. Operation proved the stenosis to be due to an *encircling adhesive band*. (The uterus was present; the initial pelvic procedure had been a bilateral salpingo-oophorectomy.)

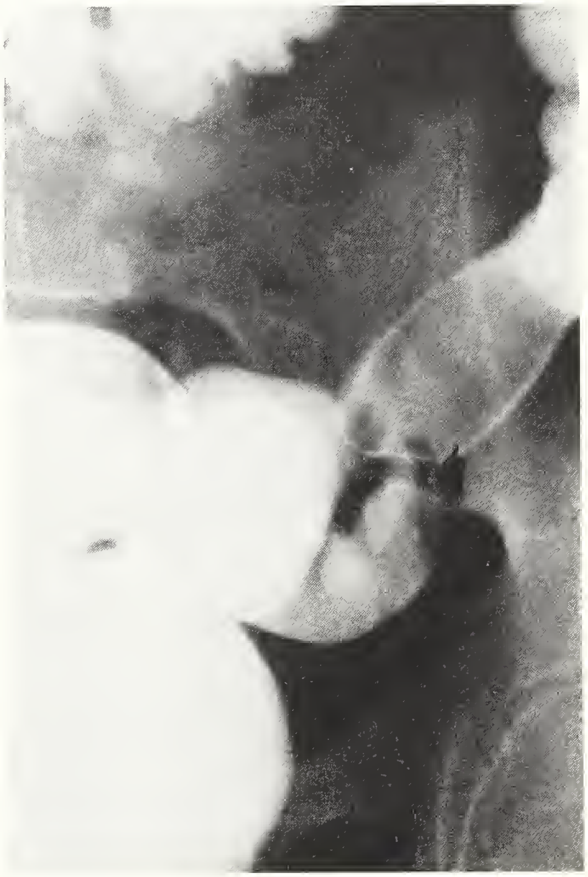

Fig. 1

II. Hernial Constriction

Fig. 2 is a magnification view of a clonic loop incarcerated in a left inguinal hernia. The stricture at the arrow was totally obstructive to the retrograde flow of barium. The narrowing is secondary to extrinsic compression at the site of exit of the intestinal loop from the hernial sac. Although an unusual causal agent of bowel stenosis, several additional features of this hernia are even more unique.

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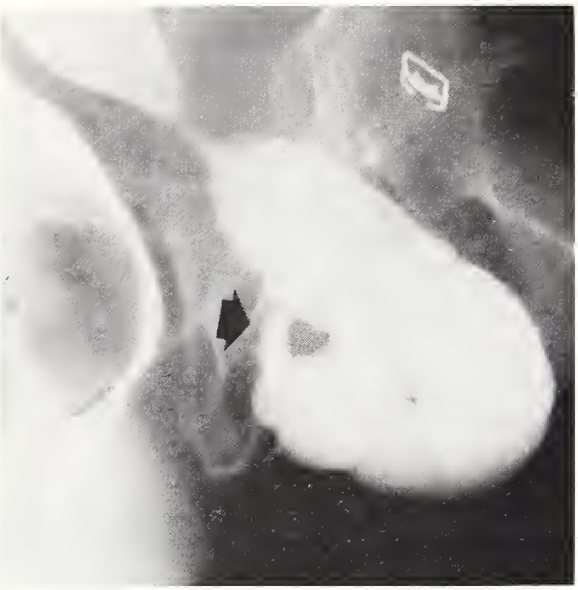

Fig. 2

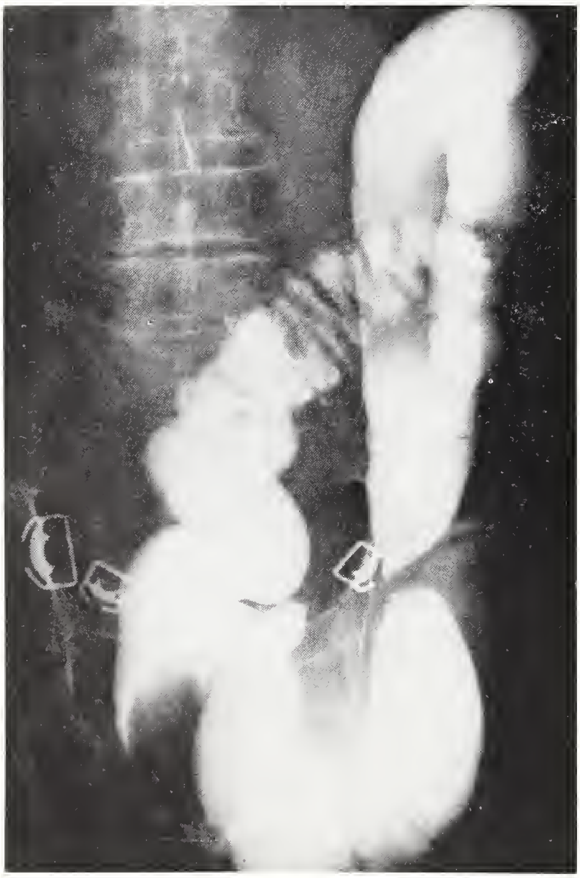

Fig. 3

Was this 72-year-old man hospitalized because of clinical manifestations of intestinal obstruction? No! He was admitted after an exsanguinating rectal *hemorrhage*.

The colonic loop incarcerated in the left inguinal hernia is presumably sigmoid bowel. Wrong again! The herniated segment is the *transverse* colon. Fig. 3 reveals that the proximal limb of the splenic flexure descends vertically to the inguinal hernia; the sigmoid is unusually high, well remote from the inguinal area.

Multiple sigmoid diverticula are opacified by barium. These have an innocuous appearance. Nevertheless, was the bleeding secondary to diverticular disease and the more conspicous hernia a concomitant, but unrelated lesion? Not so! A subtotal colectomy after herniorrhaphy revealed an occult bleeding *stercoral ulcer* within the herniated transverse colon. The ulceration measured 1½ cm x 3 cm and extended into the submucosa. It apparently was secondary to prolonged pressure by impacted feces. (In elderly or bed-confined patients with malnutrition and constipation, such stercoraceous ulcers are sometimes the cause of free colonic perforation.)

TRAUMATIC STENOSES

I. Nonoperative Traumatic Stricture

Fig. 4 is a magnification view of a sigmoid stenosis (arrow) in a barium enema projection of a 24-year-old man. Alone, the nonspecific stenosis is undiagnosable. Correlation with the clinical perspective and concomitant x-ray findings demonstrated in Fig. 5 solve the enigma.

Pertinent prior medical history. The patient was struck across the pelvis by a falling tree while working in the woods. Initial pelvic projections revealed pubic separation at the symphysis, dislocation of the left sacroiliac joint and a comminuted fracture of the left proximal femur. An opaque cystogram showed extraperitoneal extravasation of contrast medium due to perforation of the urinary bladder. After suprapubic bladder drainage, abdominal exploration revealed a rent in the sigmoid mesentery with accompanying denuded serosa of an 8 cm segment of sigmoid colon. The mesenteric rent was closed and a diverting loop transverse colostomy established. Subsequently, the femoral fracture fragments were transfixed.

X-ray findings. Fig. 5 reveals persistence of the pubic separation, the nailed left femoral fracture and a colostomy appliance.

The colon study illustrated in Figs. 4 and 5 was performed two months following the accident. The traumatic sigmoid structure was next resected and the colostomy closed. Histologically, the stenotic zone contained a shallow mucosal ulceration accompanied by marked fibrosis and scarring in the deeper tissues.

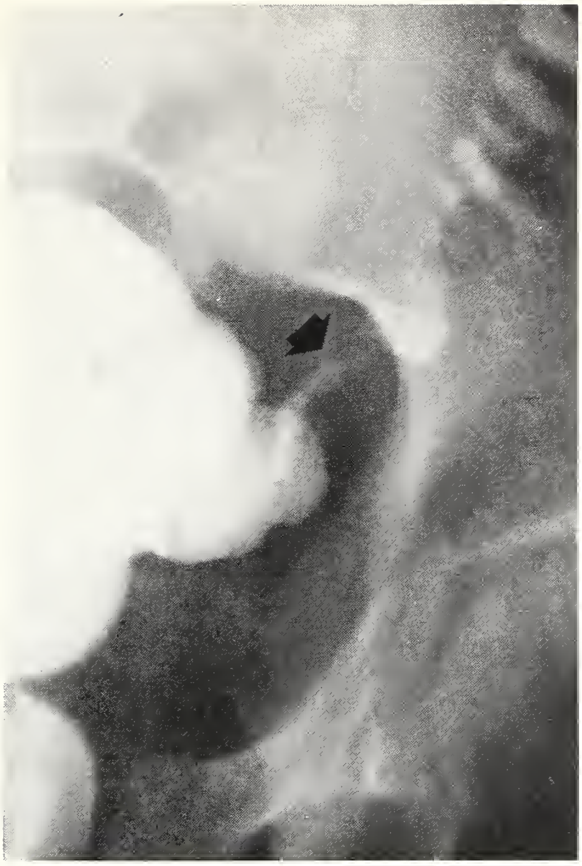

Fig. 4

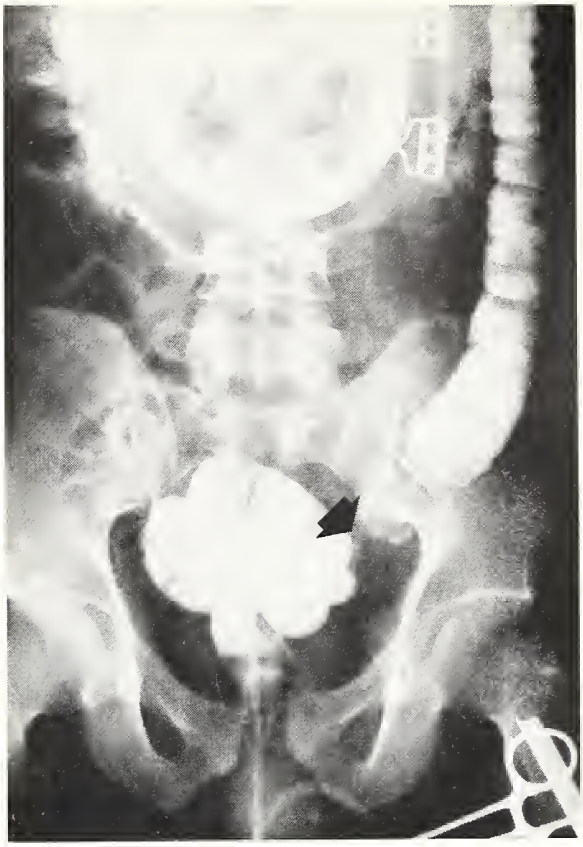

Fig. 5

Intramural intestinal hematomas capable of causing intestinal obstruction recently have been popularized in cases of abdominal trauma (as well as in bleeding diatheses). In contrast to this type of acute obstructive process, the post-traumatic constriction demonstrated is an oddity. Stenosis formation has been attributed to two mechanisms: abdominal contusion impairs the mesenteric vascular supply resulting in thrombosis. Ischemia causes edema of the bowel wall with epithelial atrophy and connective tissue proliferation. Furthermore, smaller vessels inside the intestinal wall are ruptured by closed abdominal injury. The resultant hematoma eventually becomes organized.

Because of its more centralized position over the spine, the small bowel is more susceptible than the colon to damage by abdominal trauma.

II. Operative Strictures

These postsurgical filiform strictures rank as the most severe in an extensive collection. Nevertheless, both patients were *asymptomatic!*

In Fig. 6, a short, profoundly narrow sigmoid stricture is demonstrated in a routine barium

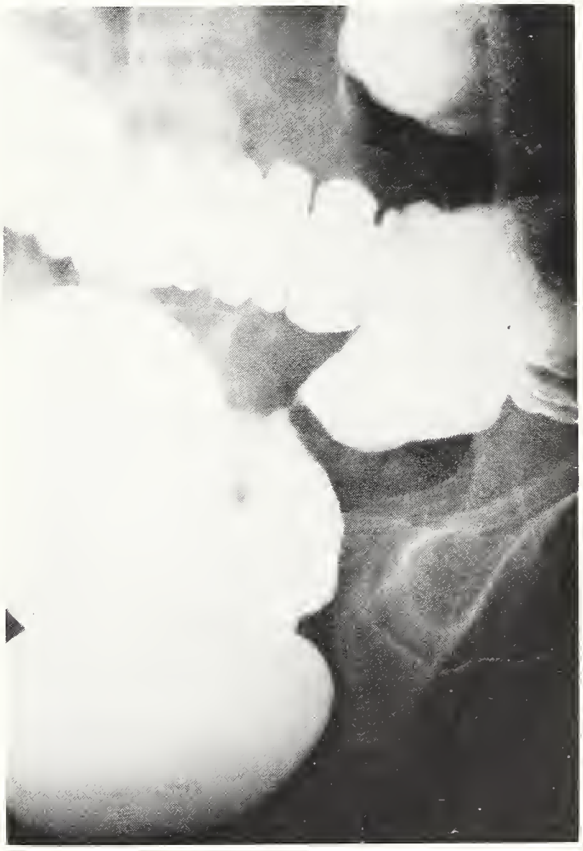

Fig. 6

enema of a 61-year-old woman. Not only was the patient insistent that she was asymptomatic, but also the proximal colon is of normal caliber and free of fecal stasis.

Ninteen months prior to this examination, an exploration laparotomy revealed both small bowel and sigmoid colon anchored to a left ovarian cystadenocarcinoma. The sigmoid loop was perforated during dissection of the intestine from the cystic mass. The patient's subsequent course confirmed the impression that the stricture was postoperative and unrelated to recurrent neoplasm.

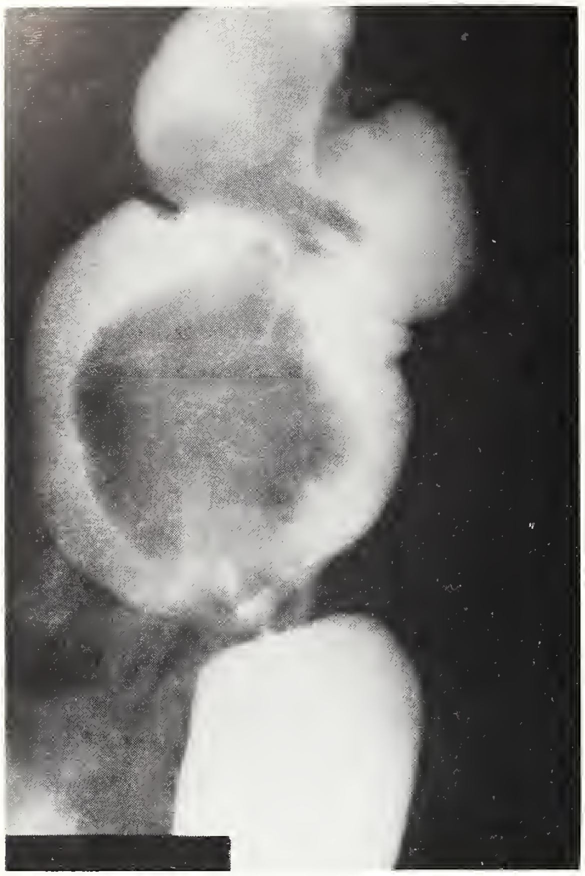

Fig. 7

In Fig. 7, a magnification barium enema projection reveals a brief high-grade anastomotic stricture of the left colon accompanied by proximal bowel dilatation and a large fecaloma. This study was performed after a curettage for vaginal bleeding disclosed an endometrial adenocarcinoma. The 72-year-old patient denied any bowel complaints.

Hysterectomy proved that the curettement had been curative. An anastomotic recurrence or adhesions at the site of this postoperative stricture were excluded during coloplasty. The initial distal colon resection had been performed almost five years earlier for multiple intestinal polyps.

Carcinosarcoma of the Esophagus

(Continued from page 422)

ed, and the patient was discharged to be followed as an outpatient. In this case, the tube continues to give good palliation and the patient remained symptom free for four months.

Summary

A case of carcinosarcoma of the esophagus is presented. Diagnosis was made by biopsy of the tumor at esophagoscopy. Involvement of the bronchus by local extension was demonstrated and palliation was achieved with a Mouseau-Barbin tube. The importance of adequate biopsy at the time of esophagoscopy is emphasized.

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Dr. Thomas W. Johnson of Dyersburg, Tenn. has joined the staff of the American Academy of General Practice as Field Secretary of the Division of Education. He will work with medical schools and teaching hospitals in setting up undergraduate and graduate (residency) programs in the new specialty of Family Practice.

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Changing Pattern of Brucellosis in Missouri

A Study

Brucellosis is a zoonotic disease which affects man and several domestic animals, including cattle, swine, goats, dogs and horses. The three species of *Brucella* are *Br. abortus, Br. suis* and *Br. melitensis.* This disease in human beings is acquired by direct or indirect contact with animals or their products, including unpasteurized milk, and by laboratory or inoculation infections. The latter mode of transmission occurs almost exclusively among veterinarians.

Bothwell[1] described acute brucellosis in man as being characterized by an intermittent bacteremia with fever, aching, headache, sweating, prostration and weakness. The organism tends to localize in the osseous portion of the spine, the meninges, liver, gallbladder or other organs where it may be involved in a suppurative process. The acute form of the disease is the most easily observed and diagnosed. Chronic brucellosis probably is more common and is more difficult to diagnosis because it manifests itself as an inapparent or mild infection. Thus, chronic brucellosis probably is grossly underreported.

The incidence of brucellosis in humans and bovines in the United States and Missouri has declined steadily since implementation of the Federal Brucellosis Eradication Program. Steele[2] reported there were 6,321 cases of brucellosis in the United States in 1947 and the number of cases declined to 636 by 1961. By 1968, the reported frequency of this disease in the United States had decreased to 262 cases.[3] Missouri had a similar decline in the number of reported cases. In 1958, 42 cases were reported to the Department of Vital Statistics of the Missouri Division of Health.[4] After 1958, the average number of reported cases declined to 11.6 cases per year.

Methods

Data concerning cases of brucellosis among human beings were obtained from the Missouri Division of Health, Department of Vital Statistics. Information about cases among humans was recorded on morbidity report cards which were returned by the attending physicians. These report cards listed the following information: the patient's name, age, sex, race, occupation and address; the time of the onset of the disease; and the time of reporting the disease to the Department of Vital Statistics. Other information was obtained from correspondence files containing letters written to the attending physician after he submitted a blood sample for brucellosis testing which subsequently was identified as having a positive titer. The file also contained the physician's answers to a questionnaire concerning additional information about the patient.

Results

The geographic distribution of reported cases of brucellosis among human beings during the period of January, 1958 to December, 1965 is

A study of 116 reported cases of brucellosis in humans in Missouri reveals interesting changes in the pattern of the disease. Exposure to brucellosis is shifting from rural to urban areas where it involves meat packers and veterinarians, in addition to farmers. It has become a disease that primarily affects adult males. Even though it is becoming less prevalent, the authors emphasize the need for more extensive diagnosis and a prevention program in Missouri. The authors are from the University of Missouri where Dr. Schwichtenberg is a Resident in Veterinary Public Health; Dr. Blenden is Associate Professor and Chief of the Section on Veterinary Public Health, School of Veterinary Medicine; and Dr. Parrish is a Professor of Community Health and Medical Practice, School of Medicine.

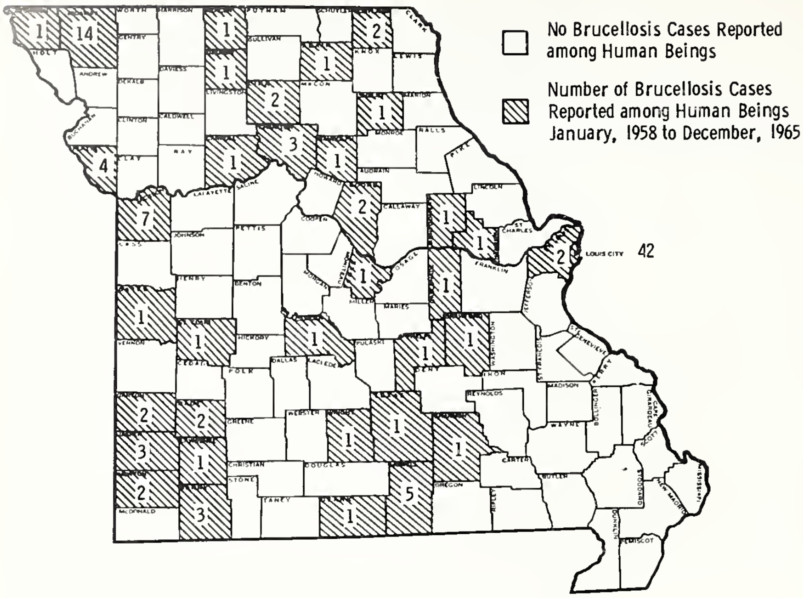
☐ No Brucellosis Cases Reported among Human Beings
▨ Number of Brucellosis Cases Reported among Human Beings January, 1958 to December, 1965
LOUIS CITY 42

Fig. 1 Counties in Missouri reporting one or more cases of brucellosis among human beings from January, 1958 through December, 1965.

shown in Fig. 1. The disease was reported in 37 (32%) of all 114 Missouri counties. Cases were reported from counties in all sections of the state except extreme Southeast Missouri. The brucellosis rate ranged from a high of 630 per million in Nodaway County to a low of 2.8 per million in St. Louis County. The largest number of cases, 42, was reported from St. Louis City. In Nodaway County, there were 14 cases reported during the study period. Of importance is the fact that Nodaway County is the largest swine producing county in Missouri. Although the cultures of paients were not classified according to species, it seems likely that *Br. suis* was involved in some of these cases. Other counties reporting several cases were Jackson, seven; Howell, five; Platte, four; Barry, three; Chariton, three; and Jasper, three.

An evaluation of the age and sex distribution of all reported cases was made. There were 91 (78%) males and 17 (15%) females. The range in age among males was from 20 to 72 years and the age range among females was from four to 74 years. Persons between 20 and 60 years of age constituted 86 (94%) of the males and 11 (65%) of the females.

Of 103 brucellosis victims whose race was stated, 67 (65%) were whites and 36 (35%) were nonwhites. According to the U. S. Census, there was a total population of 4,319,813 in Missouri in 1960. Of these, 3,922,967 were white and 396,846 were nonwhites. If there were an equal chance of developing brucellosis among persons of different races, then cases in ten nonwhites would have been expected, whereas 36 cases were actually observed. For the white race under the same circumstances, 93 cases would have been expected, whereas 67 cases were actually observed. On the basis of these considerations, it appears that nonwhites had a greater degree of exposure to brucellosis.

There was a ratio of about four males for each female among the whites who had brucellosis. The sex ratio among cases in nonwhites was 16 males to one female. This is four times the ratio reported among whites. Thus the sex ratio of males to females was significantly higher among nonwhites.

Since 1958, most brucellosis infections in Missouri were acquired through occupational exposure. Of 116 cases of brucellosis, the occupation of the victim was stated in 82 (71%) cases. The occupations most frequently involved were packing house workers, 37 cases; farmers, 35; veterinarians, four; and various other occupations, six. It is important to note that among meat packers with brucellosis, 27 were nonwhites and only ten were whites.

DISCUSSION

In Missouri, there has been a declining number of cases of brucellosis reported for human beings and, also, a decline in the occurrence of brucellosis in cattle. There are several reasons for the decline. In cattle, the Brucella Ring Test (BRT) program and the serum agglutination test have effectively identified the animals which were reactors to Brucella antigen. As the number of reactor animals is reduced, there is less chance for the nonreactor animals to come into contact with the disease. Strain 19 *Br. abortus* vaccine and its use to vaccinate calves also has reduced the number of animals which are susceptible to infection. The animals which are identified as reactors are removed from the farm or ranch and are sent to meat packing plants so they cannot expose other animals to the disease.

The declining number of reported cases of brucellosis among human beings closely parallels the declining occurrence of the disease in cattle. The increasing practice of home pasteurization of milk has caused a decrease in cases among farm families in rural areas. The reason offered most frequently in explaining the increased occurrence of urban cases is the success of the bovine brucellosis eradication program. As animal reactors are identified and shipped to central markets, there is an increased exposure potential among the people in the packing houses who slaughter these animals. Also, one would expect to find better medical diagnosis in a large city, especially for plants that have an industrial medicine program. Thus, the eradication program is reducing the occurrence of brucellosis among cattle and rural people and at the same time, is concentrating the disease among packing house employees.

There is some hope that as the number of bovine reactors decreases there will be a concomitant drop in the exposure potential of packing house workers. This will not be the case if a swine brucellosis eradication program is implemented. Many authorities[2, 5-8] feel that the greatest present single source of brucellosis infection among human beings is caused by their contact with infected swine either on the farm or in packing houses. At present, there is no swine eradication program operating within the state of Missouri. Physicians practicing in counties which have large swine populations should give more attention to brucellosis as a possible occupational associated disease. A special point is made of this because many physicians think of brucellosis almost exclusively as a cattle-man disease and exclude swine from consideration.

This study points to three occupational groups as having high risks for developing brucellosis: veterinarians, packing house workers and farmers. Veterinarians in Missouri have the highest reported rate of occurrence, 4 out of 550 or 7,272 per million. Brucellosis probably is underreported among veterinarians. In a study of Illinois veterinarians, Schnurrenberger[9] found that brucellosis in that state's veterinarians was reported much more frequently and was 179/1177 or 152,082 per million. The differences in brucellosis rates probably are due to the fact that Illinois has a very aggressive health program for its veterinarians. It is unfortunate that there are no figures showing the number and characteristics of the people who are employed in the meat packing industry in Missouri. Without this information, it is impossible to determine the incidence of brucellosis among packing house employes. The fact that packing house workers have the highest number of reported cases of brucellosis indicates that this disease is a definite occupational hazard. Well-organized industrial medicine programs are needed for this industry. The problem of brucellosis and farmers probably will be with us as long as we have farmers and animals. However, the incidence of brucellosis among farmers could be reduced by an effective health education program and by increased reporting of cases by physicians who treat farm families. The first step in increased surveillance and reporting would be to routinely submit blood samples of all hospitalized farmers to the laboratories of the Division of Health of Missouri. This would greatly improve diagnosis and, in turn, bring more brucellosis patients to treatment.

SUMMARY

A study of 116 reported brucellosis cases among human beings in Missouri from January, 1958 through December, 1965 shows that the pattern of the disease has changed from a moderately prevalent disease to a relatively rare disease; from a rural to an urban geographic distribution; from a disease primarily involving farmers and farm families to a disease of veterinarians and meat packers; and, with the increased pasteurization of milk, to a disease primarily affecting adult males. The need for a more extensive diagnosis and prevention program in Missouri is emphasized.

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(Continued on page 432)

ARTHUR SIMMONS, L.C.S.L.T., Iowa City, Ia. ***and***
DONALD E. CROSS, M.D., ***Kansas City***

Activated Partial Thromboplastin Time Test in Heparin Therapy

A Study

THE LEE WHITE coagulation time (LW) is used frequently to control heparin therapy, but the technical problems involved make it a difficult test to standardize and reproduce. Struver and Bittner[1] were the first workers to suggest that the activated partial thromboplastin time (APTT) be used to control heparin anticoagulation and, later, Lanahan *et al*[2] showed that the APTT could be used to control this drug in animals. More recently, Harmeling and Cordray[3] and Spector and Corn[4] have compared the APTT with the LW with varying degrees of success. The former authors did not recommend the adoption of the APTT because of poorly standardized reagents, while the latter authors obtained a linear relationship between the two tests and concluded that the APTT should replace the LW.

This study of 101 patients receiving heparin therapy was undertaken to compare the conventional Lee White coagulation time and a kaolin-activated partial thromboplastin time (APTT). The authors conclude that the APTT is a most sensitive and technically more-reproducible test than the Lee White coagulation time for this evaluation and recommend that it be used in the control of heparin therapy. Mr. Simmons, a Licentiate of the Canadian Society of Laboratory Technology, was associated with the Kansas City General Hospital and Medical Center at the time this paper was written. He is now Associate Hematologist, Department of Clinical Laboratories, University Hospital Medical Center, University of Iowa. Dr. Cross is from the Department of Medicine, Kansas City General Hospital and Medical Center.

Because of this divergence of opinion and the uncertainty of existing techniques, a further study was undertaken to compare these two tests. A total of 192 separate parallel studies were evaluated, including studies on two patients undergoing renal dialysis.

MATERIAL AND METHODS

The LW coagulation time was determined as follows. Blood was obtained using a siliconized syringe. One milliliter of blood then was dispensed into each of three 8 mm diameter disposable glass tubes and incubated at 37.5 C. The tubes were tilted in the same direction at 30-second intervals through an angle of 90°. The clotting times of the blood in tubes #2 and #3 were averaged.

The APTT was carried out using commercially obtained reagents.* The activation was carried out using kaolin. Four and five tenths milliliters of blood was added to 0.5 ml of citric acid-sodium citrate mixture obtained from the manufacturer of the reagent. The plasma was tested within 30 minutes of obtaining the specimen and the clotting end point was established by the conventional tilt-tube method. A small number of APTT tests were determined, using 3.8% sodium citrate as the anticoagulant. The results from these tests are not included in this survey, but are discussed later.

RESULTS

Table 1 shows a comparison between Lee White coagulation times and activated partial thromboplastin times in patients receiving heparin therapy. All the studies were taken one hour prior to administration of the next dose of heparin. A control group of 91 patients, in whom no heparin was given, also were compared.

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* Hyland Laboratories, Los Angeles, Calif.

TABLE 1

COMPARISON BETWEEN THE LW COAGULATION TIME AND THE APTT IN HEPARIN THERAPY

	Number of Tests	*Lee-White Coagulation Time (Min.)*	*Mean APTT (Sec.)*	*95% Confidence Limits*
Control Group	21	0-5	41	33-49
	70	5-10	45	32-58
	23	10-15	53	44-82
	28	15-20	86	55-117
	16	20-25	119	74-164
	12	25-30	166	101-231
	22	30	137	96-178
Total	192			

Figs. 1 & 2 show individual responses to heparin as measured by the tests under study in two patients undergoing renal dialysis. Individual heparin concentrations are compared in parallel to the tests to see if a relationship could be established.

Fig. 3 attempts to correlate the Lee White results with the activated partial thromboplastin results to determine the degree of scatter between these two tests.

Discussion

One of the problems encountered in comparing different tests is in the variation of methods and materials used. The LW coagulation time is a test renowned for its many technical variables, which include the method of obtaining the blood sample, the use of saline-rinsed or dry syringes, the diameter of the tubes used, the method of tilting and the time interval between drawing the blood and incubation.

The obvious advantages of the APTT test, in addition to being a more sensitive barometer to depressions of coagulation factors,[5-7] lie in the reduction of these technical problems. Spector and Corn[4] use a modification of the LW test that in their laboratory gives a normal range between nine and 17 minutes. Using the method previously described, the LW test produces a normal range of between five and ten minutes. It then becomes important for each individual laboratory to reestablish its own normal range for each test and not to rely upon previously published normals. The APTT reagents used by the same authors also were obtained from a different commercial source than that used in this experiment, and the test bloods were drawn into 1.34% sodium oxalate. In our laboratory, the bloods were taken into the more stable buffered

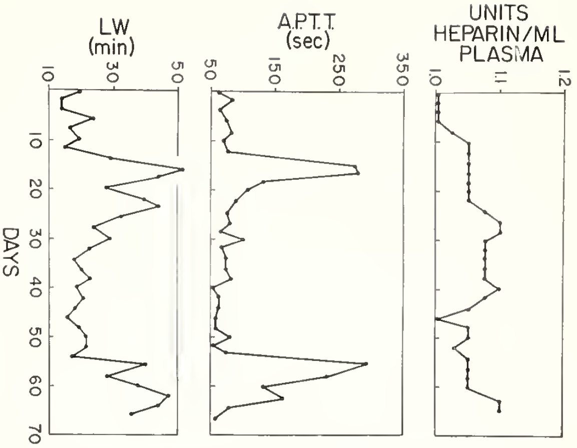

Fig. 1 Relationship between the LW coagulation time, APTT and heparin concentration in the plasma in Patient #1, a chronic renal dialysis patient.

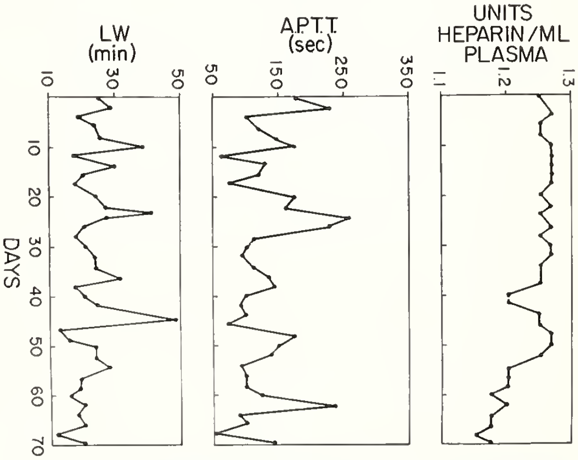

Fig. 2 Relationship between the LW coagulation time, APTT and heparin concentration in the plasma, in Patient #2, a chronic renal dialysis patient.

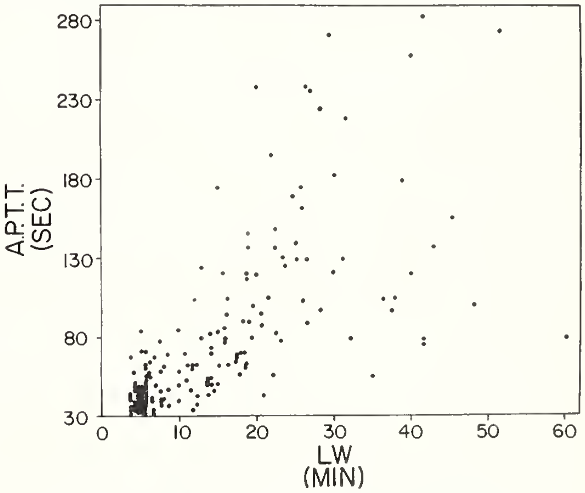

Fig. 3. Scatter graph of 192 parallel determinations of the LW coagulation time and the APTT.

citric acid-sodium citrate anticoagulant. This was obtained from the manufacturer of the APTT, but can be made using Rapaport's method.[2]

Harmeling's and Cordray's methods[3] also differed from those used in this study in their choice of anticoagulant used to obtain the patient's plasma and in the source of partial thromboplastin. These workers determined the APTT on blood taken into 3.8% sodium citrate and used an ellagic acid activated partial thromboplastin in their study. A small number of APTT tests were carried out simultaneously on the same patients in this institution, using vacutainer tubes contining a 3.8% sodium citrate.* In every test, the APTT was 20% to 25% longer using this anticoagulant, compared to the buffered citric-acid-sodium citrate mixture.

Because the action of heparin bears a relationship to its in vivo plasma concentration, a study of two patients undergoing renal dialysis was undertaken so that a comparison could be made between the action of the drug in the same patients with known plasma volumes. Heparin administration consisted of an initial dose of 2,000 units followed by an intravenous drip of 2,500 units over a one-hour period. Blood for the LW coagulation time and the APTT was taken exactly at the end of the heparin infusion. The patient's plasma volume was determined by the use of radioactive I^{131} tagged albumin, both predialysis and postdialysis. Heparin concentration in both patients investigated appeared fairly constant and bore no significance to the considerable fluctuations of both tests under investigation (Fig. 1 and Fig 2). One pertinent observation was made regarding this unexplained fluctuation. Occasionally, different lot numbers of heparin from the same manufacturer produced considerably different clinical effects when given in the same dosage to the same patients. This was found to be true in two different manufacturers' material.

A comparison of the mean APTT (Fig. 4) with the LW shows only fair correlation up to a LW of 30 minutes, but, with times in excess of this, the APTT appears not to correlate well. The large degree of scatter found in this study, even with coagulation times of less than 30 minutes (Fig. 3), is thought to reflect the poorly reproducible technique of the LW coagulation time due to the many inherent problems of the test, rather than a lack of correlation between the APTT and the in vivo anticoagulation of the patient. One advantage of this conversion is that the laboratory staff no longer has to carry out LW coagulation times at six hourly intervals on patients receiving heparin. The elimination of this time-consuming test and replacing it with the APTT enables technologists to make better use of their time. The staff of this 550-bed institution has been using the APTT to control heparin anticoagulation for the past ten months. The suggested therapeutie range used in our hospital is 80-120 seconds. After an initial period of educating the house staff to a relatively new test and the control values associated with it, the clinical results have appeared to be good.

SUMMARY

We believe the APTT is a most sensitive and technically more-reproducible test than the LW coagulation time to evaluate heparin therapy. It offers an added advantage of saving considerable time for the laboratory staff. Because of the advantages, we recommend that the APTT replace the LW in the control of heparin therapy.

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Brucellosis in Missouri

(Continued from page 429)

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President's Message

Physicians and others in the medical field are being asked three questions concerning today's physician shortage: (1) What caused the shortage? (2) What is being done nationally to relieve it? (3) What can we do about it in Missouri?

Some of the causes (not in order of importance) are (1) our affluent society; (2) more sophisticated demands of the public; (3) the armed forces; (4) thousands of physicians engaged in research, much of which is valuable; (5) greater industrialization; (6) increased demands from Medicare and Medicaid; (7) increased insurance for hospitalization and medical care.

Doyle C. McCraw, M.D.

Most of the existing medical schools in the nation have increased their enrollment in recent years, some by as much as 50%. More than 1,000 new openings in first year classes have been made available in the past three years. Hopefully, additional schools will be started within the next five years.

On the surface, it would appear that Missouri is now in pretty good shape. To review, the graduate output of our two private medical schools during the period of 1952-1955 averaged 214. Ten years later, however, the total of graduates was only 242, even with the addition of Missouri University which was then graduating a class average of 63 per year. Happily, the total graduate output of the three schools now should soon exceed 300 per year.

The national average of admissions to medical schools is 4.5 students per 100,000 population. Missouri averages only 3.5 students, while the average in Arkansas is 6.2; in Oklahoma, 5.0; in Kansas, 5.5; and in Nebraska, 7.1.

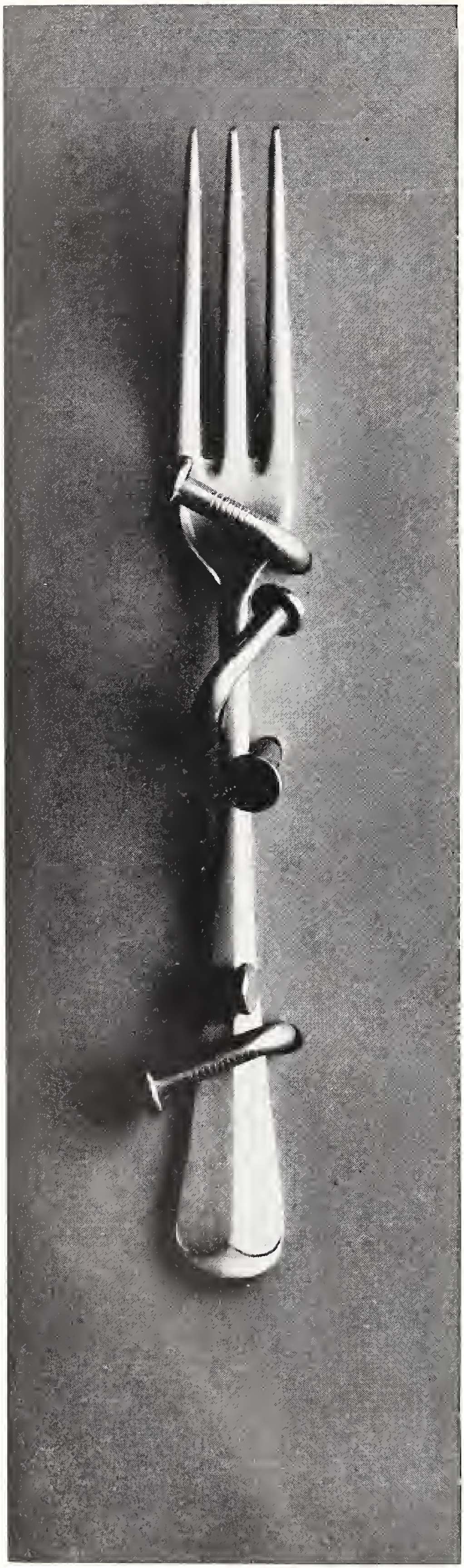
Missouri University has had more than 1,000 applications this year and could have selected 400 to 500 more topnotch applicants had there been room for them. We must strive to find a place for every well-qualified applicant. Even with our best effort, it is unlikely that there ever will be enough doctors to meet the demands. However, we certainly can improve the supply of physicians.

Missouri is failing to attract a sufficient number of physicians from other states. We also are failing miserably in our effort to keep our own native Missourians who are educated in Missouri. Of 8,800 living graduates of our three Missouri medical schools, only 22% live in Missouri. Only 42% of Missouri University medical school graduates now live in our state.

A few months ago, I asked our MSMA staff to send a questionnaire to all other state associations to learn what they are doing to recruit doctors. We received answers from 36 state associations. Only a few have programs in the recruitment field and most are doing little or nothing.

We must create a good climate for physicians in Missouri. We must begin talking to medical students at the undergraduate level and stay in contact with them through their internships, residencies and armed forces service. This will require more effort than we have displayed in the past, but every doctor and his wife can be effective in this program. The MSMA state office can and will coordinate our efforts, and the medical school deans have promised their assistance.

If we do not supply the physicians to meet the ever-increasing demand of the public for health care, the politicians and planners will have a good excuse to say that our present system is inadequate. Their cure, a change of system, will only compound the problem.



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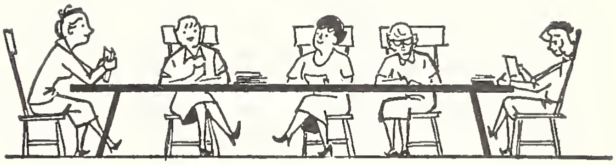
Woman's Auxiliary



Our workshops are completed! After much planning, Mrs. William Walker, President-Elect of the Woman's Auxiliary to the MSMA; Mrs. Thomas Thale, First Vice-President; and I worked as a traveling team on the circuit, travelling to Cameron, Boonville, St. Louis, Poplar Bluff and Joplin. We wish all of our doctors could have witnessed the enthusiasm and energy we observed. We now realize more fully the problems, hopes and projects of the county auxiliaries throughout the state. The workshops were informal with complete exchange of ideas.

Mrs. James A. Reid, President

All of our county auxiliaries are interested and concerned about membership. This is one area in which the members of the MSMA could be of great help. We urge you to encourage your wives to become interested in both the county and state auxiliaries. Perhaps you can help them organize an auxiliary or will encourage them to join the MSMA Auxiliary as Members-at-Large. Mrs. Marshall T. Metzgar, our Fourth Vice-President, is Membership-at-Large Chairman and invites your wives to contact her at 1205 Fieldcrest, Columbia 65201.

During our convention in March, there was considerable conversation about the mechanics of our convention. As a result, the Executive Board of the Auxiliary felt that a committee should be formed to study our convention procedure. Mrs. Edgar W. Davis, St. Louis County; Mrs. J. Otto Lottes, St. Louis City; and Mrs. Bellfield Atcheson, Jackson County, comprise the committee. As we traveled the state, we asked each group of auxiliary members to help evaluate the convention in its present form and suggest changes and updating they feel should be accomplished.

Our Immediate Past-President, Mrs. E. F. Butler of Buchanan County, has been named by Governor Warren E. Hearnes to serve on the Executive Committee of the 1970 White House Conference on Children and Youth. Little White House Conferences will be held throughout Missouri. The theme is "Operation Communication." The slogan is "Let's Talk, Listen, Learn and Act Together." Several doctors' wives in Missouri have been appointed by the Governor to serve on this worthwhile study. We are always proud of all of our active members. What better way for them to fulfill our Auxiliary theme, "Opportunity to Serve."

The Medical Family will be saddened to learn that Mrs. C. C. Long, President of the Woman's Auxiliary to the AMA, died on April 22. Mrs. Long was one of six prominent American women who visited France as guests of the French government. She had just returned from this trip.

Doctor, we hope that you will please tuck your copy of MISSOURI MEDICINE in your coat pocket each month and take it to your wife so that she can keep abreast of the Auxiliary activities.

EDITORIALS

NOBLESSE OBLIGE

John Lister, in his "London Post" for October 31, (1968), refers to an article in the *Birmingham Medical Graduate Newsletter* by Emeritus Professor of Anatomy C. F. V. Smout, deploring the unprepossessing appearance of too many of today's medical students. According to Professor Smout, "They should realize that dungarees, jeans, maxi or mini skirts, long hair, beards and an unwashed and unkempt appearance do not add to their dignity, and that dignity is a most important factor when dealing with people."

The subject may or may not remind one of Ben Jonson's Song from "Epieoene":

Still to be neat, still to be drest,
As you were going to a feast;
Still to be powdered, still perfumed:
Lady, it is to be presumed,
Though art's hid causes are not found,
All is not sweet, all is not sound.

The admonition is obviously addressed to a female, but today one cannot always be sure of the correct identification.

As Lister indicates, however, "youth responds best, not to censure, but to encouragement; and even though the problem of helping modern man to live with himself and his discoveries may seem far greater than in previous generations, the challenge for every generation must surely be to have the courage to declare its faith in the ability of youth to take care of the future."

Professor Smout admits that medical students are better than those in other faculties although, it seems, tremendously handicapped by their appearance, which would not in itself make them especially welcome at the bedside.

Hirsuteness is, of course, a form of facial forestation that comes and goes as the tides of fashion rise and fall and is not in itself a stigma of anything in particular, especially if kept under reasonable control, although a modestly bearded medical student of 90 years ago, writing home from Germany, told of a professor who saved on neckties by buttoning his beard inside his waistcoat. Males can at least indicate their manhood by displaying on their cheeks and chins a secondary sexual characteristic that the gentler sex does not usually acquire. So far as demonstrable virility is concerned, Samson was shorn of his strength with the shearing of his locks; on the other hand the ringleted Cavailers were no match for the close-clipped Roundheads.

Aside from his or her appearance, which on these shores still seems acceptable enough, the medical student now enjoys high and well deserved academic status.

It was not always so, however. Regardless of the high standing of the physician in ancient Greece and the esteem that medical studies achieved at various European centers during the Middle Ages and later, medical students generally rated below those of other disciplines during the last century, and Dickens was certainly not impressed with their appearance or their manners.

Thus he describes Benjamin Allen, in *Pickwick Papers,* as "a coarse, stout, thick-set young man, with black hair cut rather short, and a white face cut rather long. . . . He presented, altogther, rather a mildewy appearanee." His friend, Mr. Bob Sawyer, "had about him that sort of slovenly smartness and swaggering gait, which is peculiar to young gentlemen who smoke in the streets by day, shout and scream in the same by night, call waiters by their Christian names, and do various other acts and deeds of an equally facetious description. . . . He eschewed gloves and looked, upon the whole, something like a dissipated Robinson Crusoe."

In the United States, the average medical student ranked low during the last century, when it was customary for his more affluent fellows to top off their local training with a year abroad.

Reform did not become really established until after the Flexner Report was isssued in 1910, although President Eliot had started remolding medical education at Harvard in 1870 and the Johns Hopkins School had been opened in 1876. It is well known how Eliot's contention that medical students be required to take written examinations was opposed by the autocratic Henry Jacob Bigelow because so many of the students, he insisted, "could barely write." Bigelow's views on animal experimentation 100 years ago still constitute one of the leading arguments of the antivivisectionists.

So much for the slow rise and the present prestige of the student of medicine and the hope that it is not too much to expect persons of superior intellectual ability in any line to respect their own competence and be willing to create an impression that will earn them the respect of others. The principle of noblesse oblige applies no longer to hereditary rank but to personal pride in one's willingness to accept the responsibilities that excellence imposes.

The New England Journal of Medicine

EXHAUSTION OF INTEREST

Henry Haskell in a recent "Scanning the Arts" column made a pertinent statement. He said, "Exhaustion of interest in one's professional career, I suspect, occurs more frequently than we laymen realize." He was writing about Thomas Craven, an art critic, but the sentence seemed quite appropriate to the professional men in medicine.

All around us we see, if not ourselves, other physicians who appear to have an "exhaustion of interest." I can see two main contributory factors.

The first factor appears to be unalterable. It is the increasing demand for our hours by an increasing populace with medical concerns and the money to treat these concerns. There appears to be no immediately foreseeable remedy for this physician shortage and increasing lay demand.

But the second factor contributing to "exhaustion of interest" can, with diligence, be nullified. This factor is a feeling of frustration from the barrage of ever changing and new concepts in medical practice. It is easy to become exhausted by the mere contemplation of what it takes to keep up with, let along evaulate, these rapid changes in medical theory and management. This is certainly a difficult problem to solve. But there are aids. They appear in the form of abstract services, taped reviews and conferences, and the better postgraduate meetings and programs. These can be stimulating. And as has been said before, if we physicians don't participate in such refresher programs, the government and lay public may force our participation.

Don't let an "exhaustion of interest" in your profession overwhelm you.

GORDON C. SAUER, Editor
The Greater Kansas City Medical Bulletin

TAKE YOUR (?) TIME, MISTER!

Time is a relative thing and so far as we know is measured and marked only on one planet, the one we live on—earth. A man who lives 105 years is said to have lived a long time, yet a fossil 250,000 year old is considered a babe in arms so far as age is concerned.

Recently we read two philosophers' "Over Simplified" demonstration of the relativity of time. One used the physical as a measuring stick, the other used time itself. Here is the way they described time so that the amateur observer can "see" time. Let us consider the physical demonstration first.

Imagine having a post driven into the ground so that from the surface of the earth to the top of the post was exactly six feet. That represents the period of life on this planet. Now place a five cent piece on top of the post. The thickness of that nickel represents the life span of vertebrate animals on this planet. Now place a cigarette paper on top of the five cent piece. The thickness of this paper represents the period of time homo erectus—the upright, naked ape, the human being has been on this planet called earth. There is the physical showing of time. Now compare the thickness of a cigarette paper with the distance between the surface of the earth and a six foot post plus the thickness of a five cent piece on the top of it.

The other philosopher made his study in comparison using time itself as a measuring unit. His demonstration followed these lines: Imagine crowding all of the time that there has been life on this earth into a twelve month period January 1 to January 1. Until the first of September, there was very little life to speak of, some bacteria, a few worms and quite a bit of vegetation. The first fish was born on October first. November the second saw the first insect life, December third dinosaurs came, lived briefly and disappeared before Christmas. On December 31st at 7 PM homo erectus stood up and, for the first time, saw the stars and perhaps wondered just what they were. At 11:58 PM, homo began keeping a record of events—history. At 11:59:15 Greek civilization had finished setting the pattern for Western civilization. At 11:59:58 the telephone, radio, TV and the airship were invented. In medicine, the circulation of the blood was discovered—the relationship between the mind and the body began attracting the attention of students of anatomy, and chemicals began to be mixed in an effort to make life longer and more comfortable. These last two seconds of our hypothetical year are more important than we can ever realize and their effect on the next two seconds—should man survive them—cannot even be imagined.

Our pilosophers have given us two good methods by which we can think of time and its measurements. Perhaps a little study of either would change some of our attitude about the phone ringing the fourth time without being answered or why it takes years to pass a good law or repeal a bad one.

St. Louis County Medical Society Bulletin

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Convalescence following medical or surgical procedures may be almost endless to an anxious patient. And, indeed, anxiety with some patients actually retards progress—for example, by inducing insomnia and reducing cooperation.

As physicians have found during nearly 15 years of widespread use, Equanil may be a beneficial part of aftercare. It helps relieve anxiety and tension, thus often aiding your primary therapy.

Indications: For use in management of anxiety and tension occurring alone or as accompanying symptom complex to medical and surgical disorders and procedures. Though not a hypnotic, fosters normal sleep through antianxiety and related muscle-relaxant properties.

Contraindications: History of sensitivity to meprobamate.

Important Precautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use has been reported to result in dependence or habituation in susceptible persons, as alcoholics, ex-addicts, and other severe psychoneurotics. After prolonged excessive dosage, reduce dosage gradually to avoid possibly severe withdrawal reactions. Abrupt discontinuance of excessive doses has sometimes resulted in epileptiform seizures.

Warn patients of possible reduced alcohol tolerance, with resultant slowing of reaction time and impairment of judgment and coordination.

Reduce dose if drowsiness, ataxia or visual disturbance occurs; if persistent, patients should not operate vehicles or dangerous machinery.

Side Effects include drowsiness, usually transient; if persistent and associated with ataxia, usually responds to dose reduction; occasionally concomitant CNS stimulants (amphetamine, mephentermine sulfate) are desirable. Allergic or idiosyncratic reactions are rare, but such reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Previous history of allergy may or may not be related to incidence of reactions. Mild reactions are characterized by itchy urticarial or erythematous maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically as with epinephrine, antihistamine and possibly hydrocortisone. Aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia have occurred rarely, almost always in presence of known toxic agents. A few cases of leukopenia, usually transient, have been reported on continuous administration.

Meprobamate may sometimes precipitate grand mal attacks in patients susceptible to both grand and petit mal. Extremely large doses can produce rhythmic fast activity in the cortical pattern. Impairment of accommodation and visual acuity has been reported rarely. After excessive dosage for weeks or months, withdraw gradually (1 or 2 weeks) to avoid recurrence of pretreatment symptoms (insomnia, severe anxiety, anorexia). Abrupt discontinuance of excessive doses has sometimes resulted in vomiting, ataxia, tremors, muscle twitching and epileptiform seizures. Prescribe very cautiously and in small amounts for patients with suicidal tendencies. Suicidal attempts have resulted in coma, shock, vasomotor and respiratory collapse and anuria. Excessive doses have resulted in prompt sleep; reduction of blood pressure, pulse and respiratory rates to basal levels; and occasionally hyperventilation. Treat with immediate gastric lavage and appropriate symptomatic therapy. (CNS stimulants and pressor amines as indicated.) Doses above 2400 mg./day are not recommended.

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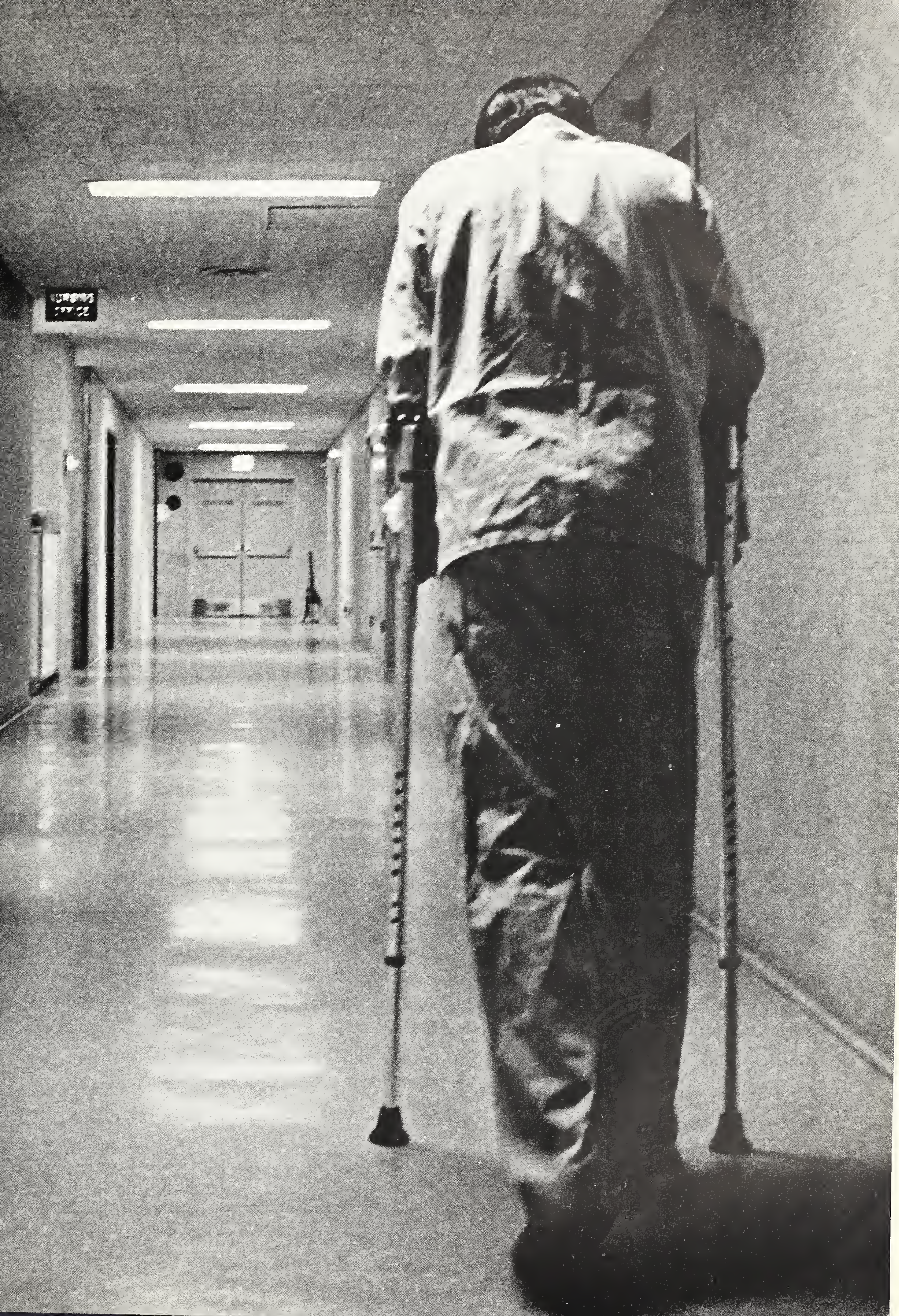
NURSING
OFFICE

COMMENT . . .

Our Readers Write

Missouri State Medical Association
515 East High Street
Jefferson City, Mo. 65101

Dear MSMA Member:

I have been thinking about our Missouri State Medical Foundation annual meeting which was held in St. Louis on March 21.

Most of the MSMF officers were present. Only **one member** attended this meeting, however, even though each of you pays $10.00 per year to the Foundation. Don't you care about how we spend your money?

Be assured that we appreciate your confidence. We feel, however, that you should give more of your funds, your thoughts and your time to the MSMF, which is needed so desperately by many Missouri students who want to become physicians.

I have a suggestion to make to you and would like to hear from you regarding it. In the future, when you provide medical care for a colleague or his family who insists upon paying you for your services, why not ask them, instead, to "send a check to the MSMF in your name and theirs." (Just send it to the MSMF in care of the above address.)

Please think this over! It seems to me that this is a perfectly ethical, easy and excellent way to meet the issue of needed funds for the student loans and to help the future of medicine. (Remember, also, that this contribution is tax deductible.)

Sincerely,
PAUL R. WHITENER, M.D., President
Missouri State Medical Foundation

In Memoriam

Bailey, Frank A., M.D., St. Louis, a graduate of New York University, 1929; member of St. Louis Medical Society; aged 62; died Feb. 13, 1969.

Ellis, Burnett E., M.D., Gideon, a graduate of the University of Tennessee, 1915; member of Semo County Medical Society; aged 79; died March 19, 1969.

Thompson, Emma A. B., M.D., Columbia, a graduate of the College of Physicians and Surgeons, Keokuk, Ia., 1892; member of Grand River County Medical Society; aged 100; died March 28, 1969.

Vinyard, Paul, M.D., St. Louis, a graduate of Washington University, 1907; member of St. Louis County Medical Society; aged 87; died March 28, 1969.

Logan, James A., M.D., Warsaw, a graduate of Barnes Medical College, 1910; member of Benton County Medical Society; aged 88; died April 9, 1969.

Underwood, Harry A., M.D., Kansas City, a graduate of the University of Kansas, 1910; member of Jackson County Medical Society; aged 50; died April 15, 1969.

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MISSOURI STATE MEDICAL FOUNDATION

515 E. High St., Jefferson City, Missouri 65101

County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Buchanan County Medical Society

Forty-five physicians attended the annual Cancer Program of the Buchanan County Medical Society on April 2. The meeting followed a dinner at The Hoof & Horn Restaurant in St. Joseph.

Dr. John L. Mothershead, president, presided at the meeting. Dr. Carlyn M. Kline, program chairman, introduced the guest speaker, Dr. Gordon C. Sauer, dermatologist of Kansas City and Professor of Medicine in the field of Dermatology at Kansas University School of Medicine.

Dr. Sauer discussed "Skin Manifestations of Internal Cancer and Internal Disease."

Dr. Ernest E. Wadlow, Delegate to the MSMA, reported on the actions of the House of Delegates at the MSMA Annual Session in St. Louis in March. An ovation was given to Dr. Joseph L. Fisher, newly-elected President-Elect of the Missouri State Medical Association and to Dr. John N. Martin, who succeeded Dr. Fisher as Councilor of the First District.

Lawrence H. Pifer, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

Chariton-Macon-Monroe-Randolph County Medical Society

The Chariton-Macon-Monroe-Randolph County Medical Society held its monthly meeting on April 10 at Woodland Hospital Medical Library. Dr. A. P. Rowlette of the Surgical Staff of Woodland Hospital spoke on "Modern Treatment of Shock."

A summary of Doctor Rowlette's paper follows:

The modern definition of shock is failure of tissue perfusion rather than the traditional concept of mere hypotension. Allowed to persist, it becomes "irreversible," consisting of an over simplified concept of intravascular "sludging" or coagulation with resultant tissue anoxia, acidosis and eventual tissue necrosis and death.

An Alpha and Beta receptor system is responding to catecholamine and the sympathetic nerve system is involved in the physiology of the vascular bed. Alpha transmission effects vasoconstriction and Beta vasodilation. Discovery of specific Alpha and Beta blocking agents have resulted in the development of this concept.

The clinical observation of the patient in shock consists of the following important aspects: (1) State of consciousness; (2) Ventilation; (3) Blood pressure, particularly pulse pressure; (4) Skin pallor and temperature of the lower extremities; (5) Evidence of pulmonary edema? left heart failure? (6) Cardiac arrythmia; (7) Renal output using indwelling catheter in bladder.

The four common types of shock in humans are traumatic, cardiogenic, septic and obstructive vascular from pulmonary embolism.

Although treatment varies in detail for the different types, in general important aspects of modern treatment for all includes: (1) Massive doses of corticosteroids; (2) Maintenance of ventilation; (3) Infusion of electrolytes and/or plasma, blood and dextran; (4) Prevention of heart failure and judicious use of digitalis.

Of interest is Lillihei's suggestion that the possibility of immunizing animals against hemorrhagic, septic and myocardial shock by repeated doses of Epinephrine weekly for six weeks be investigated for humans prior to military combat.

The following members were present: Drs. D. E. Eggleston, Gretchen Collins and J. E.

Missouri Medicine
Bill O'Malley

Campbell, Macon County; F. L. Harms, Chariton County; Josephine Baker, A. P. Rowlette, J. Will Fleming, T. S. Fleming, Robert Young, W. D. Chute, C. C. Cohrs, L. E. Huber, Robert Hasson, P. V. Dreyer, Robert Tompson, Randolph County and F. A. Barnett, Monroe County.

Clarence C. Cohrs, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR,
WILLIAM D. BRADSHAW, M.D., CLINTON

Lafayette-Ray County Medical Society

The Lafayette-Ray County Medical Society met on April 8 at Maib's Cafe in Lexington with 22 members and guests present. Guests were Dr. William D. Bradshaw of Clinton, Councilor for the Sixth District of the MSMA, and Allen Barker, a medical student at the University of Missouri Medical Center, who is taking his preceptorship with Drs. Catherine and Wayne Boydston in Odessa.

Following dinner and a brief business meeting, Dr. Bradshaw gave a short talk, emphasizing current legislation. He encouraged members to keep abreast of legislation, whether it pertained to medicine or other matters. He urged that we express our feelings to our representatives about legislation as often as possible. He also invited the members of the Society to express their wishes and desires concerning business on the State Medical Association level so that he might be better able to represent his district.

The program then was turned over to Mrs. Ruth Kelling for a Doctor's Day celebration that had been postponed due to an original date that conflicted with the MSMA Annual Session in March. Mrs. Kelling and the ladies of the County Medical Auxiliary gave a wonderful program based on changes in medicine, medical personnel, nurses and nurses uniforms from 1776 to the present time. The program was presented in a manner that could be done only by Mrs. Kelling, with the help of the Auxiliary members, supplemented by pictures, descriptions and appropriate songs of the times being described.

Following the tribute to the physicians, the meeting was adjourned.

Wayne Boydston, M.D., *Secretary*

NINTH DISTRICT

COUNCILOR
E. A. STRICKER, M.D., ST. JAMES

South Central Counties Medical Society

The South Central Counties Medical Society met on April 23 at the Holiday Inn in West Plains. A social hour preceded the dinner. Dr. and Mrs. M. L. Fowler were host and hostess for the evening.

After the dinner, the ladies retired to the home of Dr. and Mrs. Fowler.

Dr. James Cordonnier, Springfield, presented a program on "Extra Cranial Cerebral Vascular Problems." Following the lecture, a business meeting was held with ten physicians in attendance.

Jack N. Wiles, M.D., *Secretary*

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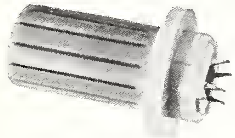

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New Members

F. Eliska Atkins, M.D., 5535 Delmar Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Atkins is a native of Oklahoma City, Okla., received her preliminary education at Vassar College and her M.D. degree at Washington University in 1965. She specializes in anesthesiology.

John D. Bentley, M.D., 419 Professional Bldg., Springfield, has become a member of Greene County Medical Society. Dr. Bentley is a native of Philadelphia, Pa., received his preliminary education at the University of Missouri and his M.D. degree at the University of Pennsylvania in 1964. He specializes in internal medicine and cardiology.

Hugh F. Biller, M.D., 517 S. Euclid Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Biller is a native of Milwaukee, Wis., received his preliminary education at Kenyon College and Marquette University and his M.D. degree at Marquette University in 1960. He specializes in otolarygnology.

Richard M. Brown, M.D., 1736 Canary Cove, St. Louis, has become a member of St. Louis Medical Society. Dr. Brown is a native of New York, N. Y., received his preliminary education at Princeton University and his M.D. degree at Columbia University in 1962. He specializes in ophthalmology.

John A. Collins, M.D., 4960 Audubon Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Collins is a native of New York, N. Y., received his preliminary education at Manhattan Preparatory School and Fordham University and his M.D. degree at Columbia University in 1959. He specializes in general surgery.

Alan G. Craig, M.D., Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Craig is a native of Aberdeen, Scotland, received his preliminary education at Aberdeen University and his M.D. degree at Aberdeen University in 1951. He specializes in psychiatry.

Adrian Duffy, M.D., P.O. Box 190, Marshall, has become a member of Saline County Medical Society. Dr. Duffy is a native of Belfast, Ireland, received his preliminary education at Terenure High School and his M.D. degree at the Royal College of Physicians in 1957. He specializes in psychiatry.

Eileen Duffy, M.D., P.O. Box 190, Marshall, has become a member of Saline County Medical Society. Dr. Duffy is a native of Nairobi, Kenya, received her preliminary education at the Cominican Convent Cabra Cublin and her M.D. degree at the Royal College of Surgeons in Dublin, Ireland in 1956. She specializes in psychiatry.

Robert J. Lukson, M.D., 1515 Lafayette Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Lukson is a native of LaGrande, Ore., received his preliminary education at the University of Washington and his M.D. degree at St. Louis University in 1964. He specializes in general surgery.

Allan H. McCown, M.D., 510 S. Kingshighway Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. McCown is a native of Moscow, Idaho, received his preliminary education at the University of Idaho and his M.D. degree at Washington University in 1964. He specializes in radiology.

Elbert R. Olson, M.D., 609 Cherry, Springfield, has become a member of Greene County Medical Society. Dr. Olson is a native of Wichita, Kan., received his preliminary education at Colorado College and Kansas State University and his M.D. degree at the University of Kansas in 1959. He specializes in ophthalmology.

Edward F. Sanford, M.D., 7226 Amherst Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Sanford is a native of Betesani, Romania, received his preliminary education at Iasi Medical Institute and his M.D. degree at Iasi Medical Institute in 1951. He specializes in psychiatry.

Courtney C. Whitlock, M.D., Professional Bldg., Springfield, has become a member of Greene County Medical Society. Dr. Whitlock is a native of Springfield, received his preliminary education at Southwest Missouri State College and his M.D. degree at Vanderbilt University in 1962. He specializes in neurosurgery.

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WHAT'S SO WEAK ABOUT THE WEAKER SEX?

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Few people are aware of the favorable as well as unfavorable effects that environment can produce on a student's ability to absorb knowledge. However, a new book entitled *Healthful School Environment* arms the reader with factual information on the vital role played by environment in the growth and development of school children.

The nearly 300-page publication, co-edited by Elizabeth A. Wilson, Ph.D. and Charles Wilson, M.D., is a completely revised edition of the former *Healthful School Living*, produced in 1957.

Healthful School Environment, published by the Joint Committee on Health Problems in Education of the AMA and the National Education Association, is available in both hardbound and paperback editions. Inquiries should be directed to the AMA Order Handling Unit.

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Charles W. Neville, Jr., M.D.

Assistant Professor of Psychiatry and Medical Director

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Help the Needy!

This patient may appear to "have everything" but, like so many people getting along in years, she may well be in need—*medically*. Though there is no evidence of organic disease, she does have symptoms (fatigue, vague aches and pains, malaise) that may be indicative of—

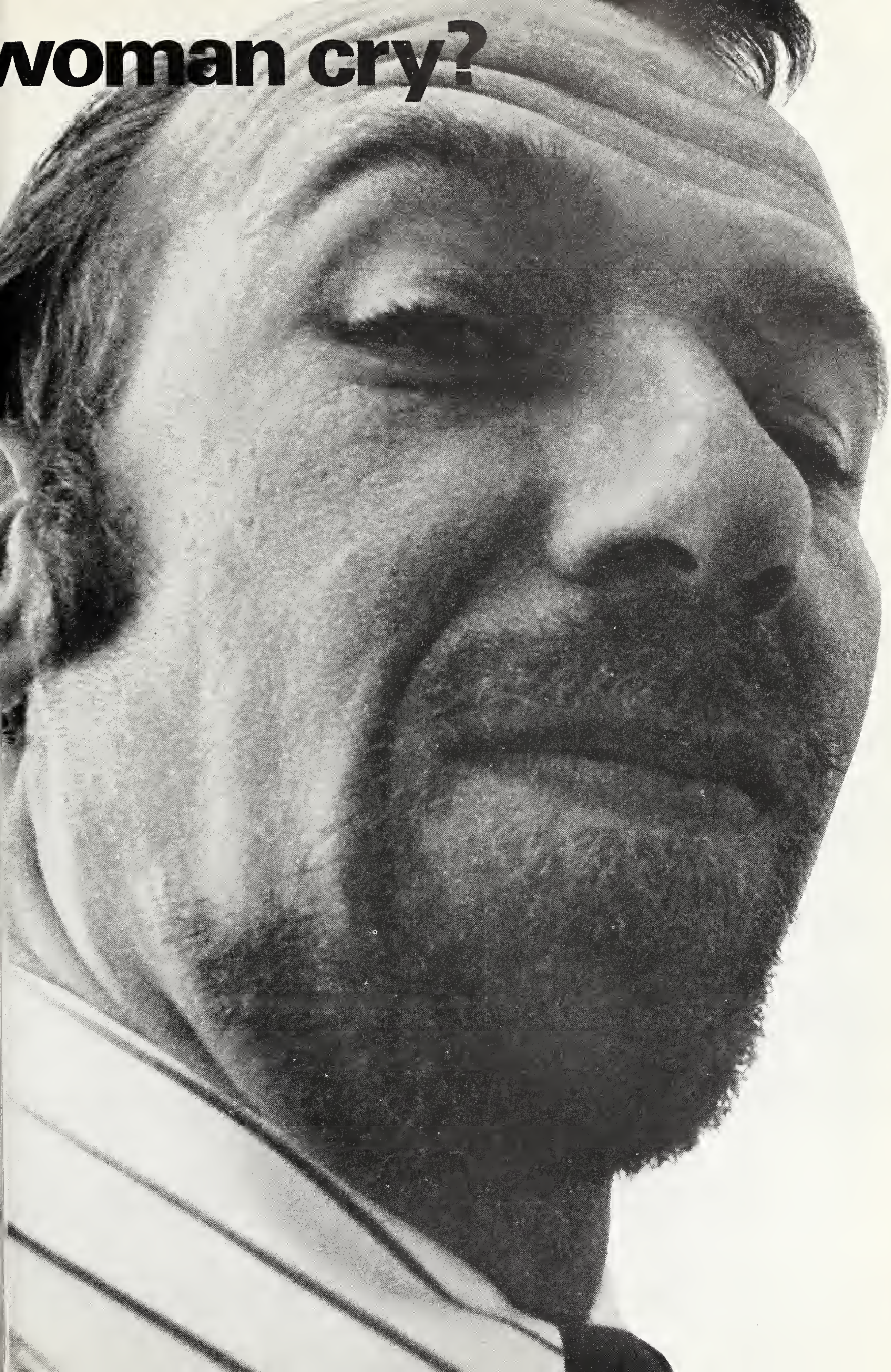
a need to maintain anabolic balance... to counteract declining gonadal hormone secretion and forestall premature degenerative changes related to estrogen deficiency;

a need for mood elevation... to impart a gentle emotional uplift;

a need for nutritional supplementation... to compensate for the poor eating habits and subsequent dietary insufficiency of so many older people.

For these needs, consider MEDIATRIC for your next "needy" patient... medically.

woman cry?



UNIVERSITY OF MARYLAND

In Washington

(Continued from page 395)

children and youths at an estimated cost of $6 billion to $10 billion a year.

The Commission recently disclosed its recommendations to the annual meeting of the American Psychiatric Association in advance of its report to Congress. The 54-member commission—which has completed a three-year, $1.5 million study—was established by Congress in 1965.

Sen. Abraham A. Ribicoff (D., Conn.), who introduced the legislation to set up the committee, said he would promptly introduce legislation to carry out the commission's recommendations.

The recommendations included national health insurance for persons up to 21 or 25 years old; family planning and birth control; prenatal care; pediatric care for children up to age of three; and physical and mental health services for older children.

Other recommendations:

—Federal funding for about 100 child development councils to help guide families through the confusion of Government agencies in order to insure diagnostic, treatment and preventive services for children.

—Appointment of a Presidential council of advisers on children and youth, similar in position and prestige to the Council of Economic Advisers.

—Establishment of state commissions and local authorities on child care.

—Federal financing of about ten evaluation centers to consider the working of the child development councils.

—Publicly supported day care available for all children.

—Federal funds for training child health and welfare personnel.

—Tax incentives to induce people to service in slum areas.

Dr. Reginald S. Louri, Washington, D. C., psychiatrist, is chairman of the joint commission.

President Nixon, in a February 19 message to Congress, said, "So crucial is the matter of early growth that we must make a national commitment to providing all American children an opportunity for healthful and stimulating development covering the first five years of life."

* * *

The chairman of the AMA Committee on Alcoholism and Drug Dependence estimated that 5% of U. S. college students have tried LSD and 20% of high school and college-age youths have experimented with marihuana and other hallucinogenic drugs.

The chairman, Dr. Henry Brill of West Brentwood, Long Island, N. Y., made the estimate in testimony before the Senate Health Subcommittee.

"And," he added, "although no accurate count has been made, there are signs that the abuse of heroin and other so-called 'hard' narcotics is spreading into the suburbs."

Dr. Brill told the subcommittee that the nation's physicians increasingly "are being called upon to treat patients with drug problems, and to give counsel to anxious and bewildered parents who are discovering that 'it can happen' to their sons and daughters."

He emphasized the need for more research in the narcotics field.

MISSOURI MEDICINE *welcomes comments and contributions from its readers. Correspondence should be addressed to the Editor with the understanding that such correspondence may be rejected or published (in entirety or in part) at the discretion of the Editor. With the exception of scientific papers, correspondence usually cannot be acknowledged or returned.*

ACCIDENT AND HEALTH INSURANCE

The Missouri State Medical Association since 1943 has made available to its members a Special Disability Income Benefits Policy issued by our "Loyalty Group" Companies now a part of the America Fore-Loyalty Group Insurance Companies—the largest casualty-fire underwriting group in the world. The low cost at which the policy is offered is made possible through the purchasing power of the membership of your association as a whole.

Now, new plans offering long term income benefits as well as a special Major Hospital-Nurse Expense Plan have been added to the program. We suggest you who are already enrolled make sure your policy includes the maximum benefits. Those of you not enrolled, we suggest you do so today. Call or write:

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(Western Missouri Administrators)

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ELEVEN ROOM OFFICE—For rent in large Missouri city. Across from large hospital. Completely equipped. Option to buy office, general and surgical equipment. Write to Box 353, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

UNHEARD OF—General practice opportunity in Greater K. C., suburban Johnson County, Kan. Complete facilities including x-ray and excellent practice for lease. $30,000 minimum annual income. Donald J. Smith, M.D., 8600 W. 95th, Overland Park, Kansas 66212.

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ASSOCIATE OR PARTNER—In general practice to share office space in new, ultra-modern office building in Jefferson City, Mo., 30 miles from the University of Missouri Medical Center. Office space also available for Internist, Pediatrician, Dentist, Surgeon or Obstetrician. Overwhelming need for General Practitioner and above specialties. Practice overwhelming after 2½ years. Net income $35,000 to $45,000 annually. If interested call Jefferson City collect—AC 314 635-2542 or 635-2542.

ONE INTERNIST, ONE GENERAL PRACTITIONER, ONE UROLOGIST AND ONE ORTHOPEDIC SURGEON—228 bed, accredited GM&S hospital. Congenial atmosphere, excellent fringe benefits. Salary contingent on qualifications. Contact Director, VA Hospital, Poplar Bluff, Mo. 63901.

SEMI-RETIRED PHYSICIAN—To work in large industrial plant in St. Louis to do pre-employment examinations and injury cases. Less than 40 hours weekly. depending upon work load; five days weekly. No hospital work, no week-ends or night calls. Age is no factor. Contact Box 354, Missouri State Medical Association, 515 East High, Jefferson City, Mo. 65101.

WANTED—General practitioner or pediatrician to join seven-man group. Salary for two years and then partnership. Wyeth Hamilin, M.D., The Hannibal Clinic, Hannibal, Mo. 63401.

GENERALISTS—Tired of the Solo Rat Race? Medical Arts Clinic in Farmington is expanding its general medicine services. Three minutes from a new hospital in Eastern Missouri's nicest small town. C. W. Chastain, M.D., Farmington, Mo. 63640.

WANTED—Full-time industrial physicians for permanent employment in Remington Arms Company plant in Arkansas. Career positions. Excellent opportunity. General practice background acceptable. Salary open. An equal opportunity employer. Write or call collect to Dr. E. M. Marks, M.D., Medical Director, Remington Arms Co. Inc., 939 Barnum Avenue, Bridgeport, Conn. 06602, phone (AC 203) 333-1112.

WANTED—Two general practitioners in Clinic with three GP's. Furnished and equipped with x-ray and laboratory. County-seat town of 12,500; 95-bed hospital. Liberal arts college. Contact Aiken, Lawrence & Roehrs Clinic, Marshall, Mo. AC 816-426-5551.

FOR SALE—A real bargain price of only $55.00 for a new, complete set of surgical instruments for the removal of tonsils and adenoids. Consists of new Aloe chrome guillotine, retractor, knife, curette, adenotome, mouthgag and snare. Instruments have never been used. Write Box 352, c/o Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

MEDICAL RECEPTIONIST-TYPIST—Age 25-40; three years secretarial experience, preferably in psychiatric or psychological field. Salary commensurate with experience and educational background. Five-day week. Call between 9-12 A.M. AC 314 PA 1-0200, Clayton, Mo.

LOCAL TENENS WANTED—For August, 1969. General medicine only. Minimum of $2,000 per month. Illinois license required. Call Collect: 618-876-5062.

PHYSICIAN—Generalist or internist in St. Louis area. Busy practice with four other physicians in an industrial and medical-surgical practice. Excellent salary for one year, then partnership available. Call is rotated. Contact Box 355, Missouri State Medical Association, 515 E. High St., Jefferson City, Mo. 65101.

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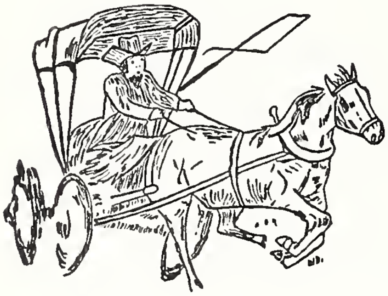
Missouri Medicine in Review



FORTY YEARS AGO

The author wishes to clarify the following references which appeared in the April, 1969 issue of this column:

> The Beaumont Hospital Medical College and the Marion-Sims College of Medicine became the St. Louis University School of Medicine. The St. Louis Medical College and the Missouri Medical College became the Washington University School of Medicine.

These references, as such, were made in the January, 1929 and February, 1929 issues of MISSOURI MEDICINE (40 years ago). The actual affiliations, however, took place at earlier dates. We thank Dr. M. Pinson Neal, Professor Emeritus, University of Missouri School of Medicine, for forwarding the following historical details:

"From University of Missouri records and other sources[1, 2] one finds that in 1847, the Medical Department of Kemper College (St. Louis) became the Medical Department of the University of Missouri, more commonly known as the Missouri Medical College.[1] The University established its own Medical School at Columbia, Mo. in 1872. In 1899, the old McDowell College affiliated with Washington University and the Missouri Medical College to form the lasting Medical Department of Washington University. The McDowell College, commonly termed McDowell's College and/or Pope College, was in reality the St. Louis Medical College.[1] In 1855, the St. Louis Medical College had received an independent charter. It formed an affiliation with Washington University in 1891.

"In St. Louis, the two oldest colleges were merged into one in 1899 and the combined school became the Medical Department of Washington University. In 1901, the Marion-Sims College of Medicine and the Beaumont Hospital Medical College were invited and in 1903 were affiliated with the St. Louis University, becoming the Medical Department of that Institution."[2]

REFERENCES

1. Long, Esmond R.: A History of American Pathology; Springfield, Ill., Charles Thomas, 1962, p. 97.
2. Goodwin, E. J.: A History of Medicine in Missouri, St. Louis, W. L. Smith, 1905, p. 12.

TWENTY-FIVE YEARS AGO

Orchids for the month go to the Josiah Macy, Jr. Foundation. This Foundation is reproducing and distributing to the medical officers of the armies and navies of the Allied Nations reprints of significant and important scientific papers. In the jungles of New Guinea, the deserts of North Africa and the plains of India, young men may thus retain some contact with research and the forward strides of civilian and military medicine.

Mr. Tom R. O'Brien, St. Louis, began his duties as Executive Secretary of the MSMA on June 1.

Dr. Eugene C. Black, Kansas City, was elected president of the Association Railway and Industrial Physicians and Surgeons of Kansas City at a meeting on May 8.

TEN YEARS AGO

The first meeting of the House of Delegates of the 101st Annual Session of the MSMA was called to order at 1:30 PM on April 5 in the Colonial Ball Room, Hotel Muehlebach in Kansas City with Speaker Oscar P. Hampton, M.D., University City, presiding. Other officers present during the session were President W. F. Francka, Hannibal; President-Elect Ralph Perry, Kansas City; Secretary John I. Matthews, Jefferson City; Treasurer R. O. Muether, St. Louis; Vice-Presidents M. T. English of Kirksville, James C. Cope of Columbia and W. O. Finney of Chaffee; and Vice-Speaker of the House, William C. Mixson, Kansas City.

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eferences:

1) Siver, R. H.: CMD, *21*:109, September 1954. (2) Frykman, H. H.: Minn. Med., 8:19-27, January 1955. (3) McGivney, J.: Tex. State Jour. Med., *51*:16-18, January 955. (4) Quehl, T. M.: Jour. of Florida Acad. Gen. Prac., *15*:15-16, October 1965. 5) Weekes, D. J.: N.Y. State Jour. Med., *58*:2672-2673, August 1958. (6) Weekes, . J.: EENT Digest, *25*:47-59, December 1963. (7) Abbott, P. L.: Jour. Oral Surg., nes., & Hosp. Dental Serv., 310-312, July 1961. (8) Rapoport, L. and Levine, W. I.: ral Surg., Oral Med. & Oral Path., *20*:591-593, November 1965.

Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Minutes of the

111th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

House of Delegates

Hotel Chase, St. Louis

March 20-23, 1969

FIRST SESSION

Thursday, March 20, 1969

The First Session of the House was called to order at 1:30 PM in the Chase Club with Paul F. Max, Speaker, presiding. The following officers, councilors and delegates were present during the 111th Annual Session:

Officers

President	David N. Kerr, St. Louis
President-Elect	Doyle C. McCraw, Bolivar
Vice-President	Arthur W. Neilson, St. Louis
Vice-President	Erroll W. Allen, Carrollton
Secretary	John I. Matthews, Jefferson City
Treasurer	Max S. Franklin, St. Louis
Speaker of the House	Paul F. Max, St. Louis
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9th District	E. A. Stricker, St. James
10th District	W. D. English, Cardwell
Immediate Past President	Hector W. Benoit, Jr., Kansas City

DELEGATES

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Andrew	Warren C. Baker, Savannah
Buchanan	John N. Martin, St. Joseph
Buchanan	Richard V. Riddell, St. Joseph
Buchanan	Ernest E. Wadlow, St. Joseph
Clay	Phillip E. King, Liberty
Clay	Truman B. Schertz, North Kansas City
Clinton	P. T. Luckenbill, Plattsburg
Grand River	
Carroll	Jack L. Vinyard, Carrollton
Linn	John R. Dixon, Brookfield
Livingston	Donald M. Dowell, Chillicothe
Northwest	
Nodaway	Robert E. Dunshee, Maryville
Nodaway	Elvin D. Imes, Maryville
Worth	Frank B. Matteson, Grant City

Second District

Chariton-Macon-Monroe-Randolph	Floyd A. Barnett, Paris
Chariton-Macon-Monroe-Randolph	F. L. Harms, Salisbury
Chariton-Macon-Monroe-Randolph	Avery P. Rowlette, Moberly
Lewis-Clark-Scotland	Landis Y. Davis, Canton
Marion-Ralls-Shelby	Thomas J. Fischer, Hannibal
Marion-Ralls-Shelby	Phillip B. Foreman, Hannibal
Pike	C. H. Lewellen, Louisiana

Third District

St. Louis City	William E. Allen, Jr., St. Louis
St. Louis City	Willard M. Allen, St. Louis
St. Louis City	Joseph E. Belew, Jr., St. Louis
St. Louis City	Armand E. Brodeur, St. Louis
St. Louis City	Marshall B. Conrad, St. Louis
St. Louis City	Thomas J. Cooper, St. Louis
St. Louis City	Joseph C. Edwards, St. Louis
St. Louis City	Richard H. Fallon, St. Louis
St. Louis City	Thomas B. Ferguson, St. Louis
St. Louis City	Max S. Franklin, St. Louis
St. Louis City	Paul L. Friedman, St. Louis
St. Louis City	August W. Geise, Jr., St. Louis
St. Louis City	Charles R. Gulick, St. Louis
St. Louis City	James N. Haddock, St. Louis
St. Louis City	George L. Hawkins, Jr., St. Louis
St. Louis City	Otey S. Jones, St. Louis
St. Louis City	Charles A. Jost, St. Louis
St. Louis City	Donald R. Judd, St. Louis
St. Louis City	Robert W. Kelley, St. Louis
St. Louis City	Edward D. Kinsella, St. Louis
St. Louis City	Charles B. Ladd, St. Louis
St. Louis City	Lawrence M. Lawton, St. Louis
St. Louis City	J. Otto Lottes, St. Louis
St. Louis City	William L. Macon, Jr., St. Louis
St. Louis City	Paul F. Max, St. Louis
St. Louis City	Arthur W. Neilson, St. Louis
St. Louis City	Lawrence W. O'Neal, St. Louis
St. Louis City	F. Eugene Pennington, St. Louis
St. Louis City	Earl A. Powell, St. Louis

St. Louis City	Hubert A. Ritter, St. Louis
St. Louis City	John S. Sciortino, St. Louis
St. Louis City	Charles S. Sherwin, St. Louis
St. Louis City	William L. Smiley, St. Louis
St. Louis City	LeRoy J. Stephens, St. Louis
St. Louis City	Juan M. Taveras, St. Louis
St. Louis City	C. M. Turner, St. Louis
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St. Louis City	Leo L. Wacker, St. Louis
St. Louis City	Herbert C. Wiegand, St. Louis
St. Louis City	Carol F. Williams, St. Louis
St. Louis City	Richard W. Yore, St. Louis

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Franklin-Gasconade-Warren	Harold Hoelscher, Warrenton
Franklin-Gasconade-Warren	George Workman, Hermann
Jefferson	J. Logan Mayfield, Crystal City
Lincoln-St. Charles	Louis P. Hetlage, Troy
Lincoln-St. Charles	Paul H. Rother, St. Charles
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St. Louis County	Jack R. Eidelman, St. Louis
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St. Louis County	Paul R. Whitener, St. Louis

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Audrain	Ben N. Jolly, Mexico
Boone	John T. Logue, Columbia
Boone	B. A. Moranville, Columbia
Boone	William B. See, Columbia
Boone	Hugh E. Stephenson, Jr., Columbia
Boone	John H. Walters, Columbia
Boone	George P. Wilson, Columbia
Callaway	Henry Durst, Fulton
Cole	G. Donald Shull, Jefferson City
Cooper	Byron M. Stuart, Boonville
Howard	W. A. Bloom, Fayette
Morgan	J. Loren Washburn, Versailles

Sixth District

Henry	W. D. Bradshaw, Clinton
Johnson	M. G. Gonzalez, Warrensburg
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Lafayette-Ray	George Davault, Richmond
Saline	James A. Reid, Marshall
West Central	
Bates	Carter W. Luter, Butler
Cass	A. W. Eklund, Pleasant Hill
Cedar	Robert Magee, Eldorado Springs
St. Clair	Donald Giesler, Osceola
Vernon	James J. Pascoe, Nevada

Seventh District

Jackson	Ray Anderson, Kansas City
Jackson	Pat Barelli, Kansas City
Jackson	Hector W. Benoit, Jr., Kansas City
Jackson	R. Allen Chandler, Kansas City
Jackson	Roy Drake, Kansas City
Jackson	Robert Forsythe, Kansas City
Jackson	John A. Griffith, Jr., Kansas City
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Greene	Stanley S. Peterson, Springfield
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Jasper	John R. Esther, Joplin
Jasper	W. T. McNew, Carthage
Ozarks	
Barry	Robert R. Donley, Monett
Lawrence	Kenneth Glover, Mount Vernon
Stone	Charles A. Brasher, Mount Vernon
Christian	Stanley D. Roper, Ozark
Taney	Roy Gillispie, Branson
Newton	Roy Kenney, Neosho
McDonald	Leo Taylor, Neosho
Webster	T. M. Macdonnell, Marshfield

Ninth District

Mid-Missouri	
Phelps	Kenneth M. Kays, Rolla
Crawford	Tom Beene, Lebanon
Dent	Martin M. Hart, Salem
Laclede	Rae W. Froelich, Lebanon
South Central	
Howell	Jack N. Wiles, West Plains
Oregon	C. W. Cooper, Thayer
Texas	M. L. Fowler, West Plains
Wright	O. M. Hasek, Mountain Grove

Tenth District

Butler-Wayne-Ripley	Richard V. Camp, Jr., Poplar Bluff
Butler-Wayne-Ripley	E. T. Hansbrough, Poplar Bluff
Butler-Wayne-Ripley	T. Eugene Ruff, Poplar Bluff
Cape Girardeau	Edwin K. Burford, Cape Girardeau
Cape Girardeau	Melvin C. Kasten, Cape Girardeau
Cape Girardeau	Harold B. Rapp, Cape Girardeau
Dunklin	John K. Legan, Kennett
Mineral Area	
St. Francois	Robert Huckstep, Farmington
Iron	Robert Dettmer, Ironton
Madison	Retus Osborn, Farmington
Washington	Kirby Turner, Potosi
Pemiscot	O. W. Cook, Caruthersville
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Perry-Ste. Genevieve	A. E. McDermott, Perryville
Semo	
Stoddard	Bennie N. Till, Dexter
Mississippi	Robert L. Frazier, Charleston
Scott	Wilson J. Ferguson, Sikeston

The invocation was given by Association President, David N. Kerr.

The Chairman of the Credentials Committee, Dr. Max S. Franklin, reported that satisfactory credentials had been presented by five officers, ten councilors and 143 delegates. He informed the House that this number of Delegates constitutes a quorum and dispensed with a roll call.

Dr. Walter T. Gunn, Chairman of the General Arrangements Committee, welcomed the Association members and their wives and guests to the 111th Annual Session and expressed the hope for a successful convention.

The minutes of the 110th (1968) Annual Session, which were published in the July, 1968 issue of Missouri Medicine, were approved as published.

The Speaker announced appointment of the following reference committees and presented his instructions to the committees:

ON REPORTS OF OFFICERS

Kenneth Glover, Mount Vernon, Chairman
William B. See, Columbia
John N. Martin, St. Joseph
Charles Gulick, St. Louis
Walter Stelmach, Kansas City

ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

Robert W. Forsythe, Kansas City, Chairman
Joseph C. Edwards, St. Louis
A. W. Eklund, Pleasant Hill
Edwin K. Burford, Cape Girardeau
C. H. Lewellen, Louisiana

ON MISCELLANEOUS AFFAIRS

Rae Froelich, Lebanon, Chairman
W. D. Bradshaw, Clinton
R. Allen Chandler, Kansas City
Thomas Ferguson, St. Louis
Henry Durst, Fulton

Dr. Paul F. Max, Speaker of the House of Delegates, declares the 111th Annual Session of the Missouri State Medical Association open as he calls the first session of the House of Delegates to order. Dr. Max also served as Speaker of the House at the 110th Annual Session.

ON RESOLUTIONS

Charles S. Sherwin, St. Louis, Chairman
Jack N. Wiles, West Plains
Kirby Turner, Potosi
Paul Rother, St. Charles
Robert Maher, Springfield

ON MEDICAL EDUCATION AND PUBLIC WELFARE

Truman B. Schertz, North Kansas City, Chairman
Paul Miles, St. Louis County
William T. McNew, Carthage
William Allen, St. Louis
Wallace McKee, Kansas City

ON NECROLOGY

Sam Bonney, Washington, Chairman
O. W. Cook Caruthersville
William G. Marshall, Glasgow
W. B. Atcheson, Trenton
F. L. Harms, Salisbury

The Speaker called on Dr. Kerr to deliver the annual President's Message.

(The President's Message is published on Page 507.)

The Speaker then called on Dr. Doyle C. McCraw to present the annual message of the incoming President.

(Dr. McCraw's address is published on Page 509.)

Both Presidential messages were referred to the Committee on Reports of Officers.

The Speaker then invited Mrs. E. F. Butler to present the annual report of the President of the Woman's Auxiliary.

(This report is published on Page 511.)

Mrs. Butler's report was referred to the Committee on Reports of Officers.

The Speaker invited Mrs. Mary Kay Bourzikas, President of the Missouri State Medical Secretaries and Assistants Society, to address the House. Mrs. Bourzikas explained that the basic objectives of the MSMSAS are to inspire its members to render loyal, more efficient service to the profession and to the public which it serves; to cooperate with the medical profession in improving public relations; and to render educational services for its members. She urged physicians to encourage their secretaries and assistants to join MSMSAS and take advantage of its programs by paying their dues for them.

(Mrs. Bourzikas's report was referred to the Committee on Reports of Officers.)

The Speaker then asked Dr. Kerr to preside at the annual ceremony in which 50 Year Pins are awarded to MSMA members who have completed 50 years in the practice of medicine.

Dr. Kerr then awarded 50 Year Pins to the following members with the congratulations of the Association for their achievement:

Clarence H. Kilker, Normandy
William F. Neun, St. Louis
Edwin H. Rohlfing, Clayton
Urban J. Busiek, Springfield

The following MSMA members who qualified for the 50 Year Pins were not present at the ceremony:

E. Eugene Brown, St. Louis
Grayson L. Carroll, St. Louis
Anthony B. Day, Marshall
David S. Dann, Kansas City
Lawrence P. Engel, Kansas City
Stanley L. Green, Independence
A. L. Walter, Sedalia
George T. Gafney, St. Louis
Samuel R. McCracken, Excelsior Springs
William J. Rutledge, Campbell

Reports of Officers, Committees and Council

The Speaker stated that the reports of Officers, Committees and Council were published in the booklet of "Official Reports to the House of Delegates" and referred the reports to appropriate reference committees. He also asked for any supplementary reports from Committee Chairmen. There were no supplementary committee reports.

The Speaker then requested any supplementary reports of the Council. He referred the various subjects within the Supplementary Report of the Council to appropriate Reference Committees. (This report is published on Page 525.)

The Reports of the Officers, Committees and Council are as follows:

REPORT OF THE SECRETARY

The Missouri State Medical Association had 4,098 members as of Dec. 31, 1968. This was an increase of 22 members over the previous year.

MEMBERSHIP CHANGES DURING THE YEAR

Members, January 1, 1968		4,076
New Members admitted during year	157	
Reinstated	8	
Total added	165	
Members dropped during year	31	
Deceased	68	
Transferred to other states	26	
Resigned	18	
Total lost	143	
Net gain		22
Members, December 31, 1968		4,098

The Committee on Nominations, which is appointed by the President from the House of Delegates, must submit nominations for the following offices:

Three Vice-Presidents to fill the expired terms of Arthur W. Neilson, St. Louis; Charles D. Osborne, Sedalia (deceased); Erroll W. Allen, Carrollton.

A Speaker of the House of Delegates and a Vice-Speaker of the House of Delegates to fill the expired terms of Paul F. Max, St. Louis, Speaker; and E. D. Imes, Maryville, Vice-Speaker.

Two Delegates and corresponding alternates to the American Medical Association to fill the vacancies created by the expiration on Dec. 31, 1969, of the terms of Delegate, Hector W. Benoit, Jr., Kansas City; Alternate, Hugh E. Stephenson, Jr., Columbia; Delegate, Arthur W. Neilson, St. Louis; and Alternate, Robert W. Kelley, St. Louis. One Alternate Delegate to the American Medical Association to fill the term of Thompson E. Potter, St. Joseph (deceased). Dr. Thompson was elected at the 1968 Annual Session to serve a two year term from Jan. 1, 1969 through Dec. 31, 1970.

The terms (two years) of the Councilors of the even numbered districts expire this year. These Councilors are Lysle M. Bach, Hannibal, Second District; Robert A. Mayer, Clayton, Fourth District; Rolla B. Wray, Nevada, Sixth District; Howard J. McAlhany, Springfield, Eighth District; W. D. English, Cardwell, Tenth District. Delegates from these districts shall meet during the meeting, prior to the last day, and elect the Councilor for their district. The election shall be certified to the House of Delegates on a prescribed form which will be furnished.

The entire session will be held in the Chase Hotel, St. Louis. The House of Delegates will hold its first session on Thursday, March 20, at 1:30 pm in the Chase Club. Reference Committees will meet in committee rooms in the hotel. The second session of the House of Delegates will convene at 4 pm, Friday, March 21, in the Chase Club. The final session of the House, a breakfast meeting, will be held in the Chase Club at 7:30 am on Sunday, March 23.

Registration facilities will be open on Thursday, March 20, from 11 am, to 4 pm, on Friday and Saturday from 8 am to 5 pm and on Sunday from 7:30 am to 9 am. Registration will be in the Chase Lounge of the Chase Hotel.

John I. Matthews, Secretary

REPORT OF THE TREASURER

The report of the Treasurer is covered in the Financial Statement which appeared in the March issue of Missouri Medicine and is included in the Delegates Handbook. Therefore, it is not repeated here.

Max S. Franklin, Treasurer

REPORT OF THE EXECUTIVE SECRETARY

Your Headquarters Staff has had a busy year working on the many activities of the State Asociation carried on under the direction of numerous committees, Council and Officers of the Association.

A Long Range Planning Committee established by the Council in 1968 began consideration of the Association's activities, objectives and overall organizational structure in relation to modern society and contemplated future trends.

The second County Medical Society Officers Conference, sponsored by the MSMA Public Service Committee, was held in Jefferson City on January 11 and 12. In spite of following closely on the Holiday Season and the competition of "Hong Kong" flu, the attendance was good and the comments from many in attendance, regarding the program, complimentary.

Mr. Robert Carroll joined our staff in May, 1968, and has been working with communication and public relations activities including liaison with members of the State Legislature and various agencies and organizations.

Mr. Royal Cooper joined our staff in January, 1969, and will be spending much of his time visiting and working with County Medical Societies over the state. He also will serve in a liaison capacity with members of the State Legislature. Mr. Don Brummall, formerly of our staff, took a new position with Blue Cross as of Nov. 1, 1968. We wish him well. We also have had some changes in stenographic positions in the office.

Immediately following the 1968 Annual Session, we were able to take over needed additional office space and have found this most helpful in carrying on expanding activities of the Association. A committee or conference room makes up a part of the addition. President-Elect and Mrs. McCraw presented the Association a gift of a splendid custom-made Conference Table for use in the conference room.

The members of your Headquarters staff have all worked hard in assisting with the detailed preparations for this Annual Meeting under the direction of the Committee on Scientific and Postgraduate Work.

Raymond McIntyre, Executive Secretary

(Referred to Reference Committee on Reports of Officers)

REPORT OF THE COMMITTEE ON SCIENTIFIC AND POSTGRADUATE WORK

The most important function of this Committee is to plan, develop and present the scientific program at the MSMA Annual Session. The Committee feels that this year's program, which includes a large number of panel discussions and symposiums, will attract broad interest from the entire Association membership.

The cooperation from statewide specialty groups, our three Missouri medical schools, Regional Medical Programs, specific Committees of the Association and other organizations in developing and presenting particular parts of the two-day scientific program merits the thanks and appreciation of all MSMA members. The official program will specifically note these groups to whom we are so indebted.

A number of special group luncheon sessions will be held in addition to a general luncheon on Friday, March 21 and on Saturday, March 22 during the meeting.

Welcome
to Suite 319
COUNTY
MEDICAL

Dr. Hector W. Benoit, Jr., Immediate Past-President and Delegate to the AMA, was among the first to register for the 1969 MSMA Annual Session and secure tickets for the Presidents' Banquet and various luncheons and breakfasts.

The Committee, working with the Association's office staff, is trying this year to measurably improve our efforts in promoting greater attendance at all sessions of the 1969 Annual Meeting Scientific Program.

Throughout the year, the Committee, with the assistance of the Executive Office Staff, has continued to assist county medical societies in planning joint meetings and in obtaining speakers for such meetings, as well as for regular component society meetings.

Your Committee Chairman represented the State Medical Association at a three-day meeting sponsored by the AMA on the subject of "Continuing Medical Education" in Chicago during November. This was an enlightening session, and it is hoped our Committee will be able to develop a number of the ideas presented for effective programs in Missouri.

The Committee wishes to sincerely thank those physicians who have appeared on the many scientific continuing medical education programs given in Missouri since our last Annual Session.

Richard W. Yore, Chairman
John I. Matthews
J. F. McDonnell
M. Pinson Neal
Edward D. Kinsella
E. D. Imes
Glenn O. Turner
W. Thomas Morgan, Jr.
Paul H. Rother
Charles P. McGinty
Mark Dodge
A. J. Campbell
T. J. Fischer

(Referred to Reference Committee on Medical Education and Public Welfare)

REPORT OF THE PUBLICATION COMMITTEE

The 65th volume of Missouri Medicine was completed with publication of the December, 1968 issue. During the year, 13 issues were printed and distributed. Eleven of these issues contained scientific papers, organizational reports, monthly messages from the Presidents of the Association and Auxiliary and news and items of interest to the profession in Missouri. One issue contained the official proceedings of the 1968 Annual Session of the MSMA House of Delegates. The other issue was the annual Directory.

There were three special issues of the Journal. One was devoted to the University of Missouri Medical Center, one to the Ellis Fischel State Cancer Hospital and one to the Missouri Regional Medical Program.

During the year, 71 scientific papers and ten special articles were published. Most of them were written by Missouri authors. The Editors wish to express appreciation to all authors who submitted scientific manuscripts and to all other individuals, institutions or organizations, including the administrations and faculties of the University of Missouri Medical Center, St. Louis University and Washington University Schools of Medicine, Ellis Fischel State Cancer Hospital and the Missouri Regional Medical Program for their valuable contributions.

At the year's end, the Journal circulation was approaching 4,800.

Advertising revenues for 1968 showed a decrease from the previous year, due primarily to the decline in national pharmaceutical advertising. The complete financial report for the Journal is included in the financial statement for the Missouri State Medical Association for the year 1968, which was published in the March, 1969 issue of Missouri Medicine and is included in the Delegates Handbook.

(Referred to Reference Committee on Reports of Officers)

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

The Committee met in St. Louis on Sunday, Oct. 27, 1968. The following represents the matters discussed and actions taken which the Committee brings to the attention of the MSMA House of Delegates.

A discussion was held concerning the MSMA resolution pointing to the need to increase the number of qualified physicians in Missouri. The Committee recommended that copies of the resolution be sent to members of the new General Assembly after November 5.

The Committee discussed the MSMA resolution from the 1968 House of Delegates urging establishment of a medical school in Kansas City. The Olson Report concerning the need for training additional doctors in Missouri was commented on by all of those present with points brought forth concerning state support for private medical schools as well as the possibility of establishing

Dr. Walter T. Gunn of St. Louis, Chairman of the General Committee on Arrangements, stands to officially welcome the delegates, members and guests to the 111th Annual Session of the MSMA. Guests who participated in the opening program are seated in the front row. Beginning with Mary Kay Bourzikas, President of the Missouri State Medical Secretaries and Assistants Society *(second from left)*, they are Dr. Edwin H. Rohlfing of Clayton; Mrs. James A. Reid, President-Elect of the Woman's Auxiliary to the MSMA; Mrs. E. F. Butler, President of the Woman's Auxiliary; and Dr. William F. Neun of St. Louis. Drs. Rohlfing and Neun were present to receive their 50 year pins.

a new state medical school in Kansas City. The Committee approved a motion stating that the details of the MSMA resolution on the Kansas City Medical School be carried out.

It was brought out that there was a need for the State Medical Association to take a look at the entire matter of medical school financing in Missouri, and the following motion was approved:

"That the Council of the Missouri State Medical Association be asked to appoint a group to explore the funding of Missouri medical education, both private and public."

It was pointed out that a MSMA Liaison Committee, which was to meet with a similar committee of the Missouri Osteopathic Association as directed by resolution passed at the 1968 MSMA Annual Session, has not had opportunity as yet to hold a meeting. The Committee recommends that a meeting of the two liaison committees be held.

A letter was presented from the Missouri State Board of Registration for the Healing Arts stating that the practice of early internships where some schools allow their students to complete their work between January and the first of June before graduation, and when a number of states allow these students to enter internships prior to graduation, could probably be arranged in Missouri.

In the 1967 Missouri Legislature, a bill was introduced which called for a year of internship before the medical graduate could get his Missouri license. The bill was not passed, but possibly may be introduced in the 1969 Legislature. Following discussion, the Committee members agreed that the measure is not needed in Missouri.

Ralph R. Hall, Chairman
William A. Knight, Jr.
William T. McNew
William C. Allen
Carl E. Lischer
Willard M. Allen
Aaron D. Freedman
Thompson E. Potter (deceased)
George E. Thoma, Jr.
John A. Nuetzel

(Referred to Reference Committee on Miscellaneous Affairs)

REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS

During the year 1968-1969, the Medical Economics Committee and the Interspecialty Committee, working together as the Medical Economics Contract Committee, have dealt with various problems arising from the implementation of Title XIX in Missouri of the Social Security Law 89-97.

The Missouri Division of Welfare asked for a definition of care to be rendered in Nursing Homes under Title XIX. After careful evaluation, the Committee recommended that physician payment be made only for care of illness, not routine visitation without illness. Care of illness would be rendered in such way and with such frequency as considered optimal by the attending physician who was expected to charge the usual, customary and reasonable fee for professional services. No mileage fee would be paid for travel. No fixed number of visits are mandatory, except for a complete physical examination once per annum. Orders must be reviewed monthly, and this may be done by telephone or letter.

If a physician is called to see one patient only in a nursing home, he will be allowed the same fee as a home visit, provided Form MS-12 has been properly filled out and signed by the physician. If more that one patient is seen on the same nursing home visit, the physician will be allowed $5 for each additional patient. Routine visits to nursing home patients will not be allowed.

On invitation, Mr. Proctor Carter, Director of the Division of Welfare, State of Missouri, appeared before the Committee on Sept. 22, 1968 and discussed the progress made to that date in implementing Title XIX care in Missouri. The plan covered 233,000 persons, including Old Age Assistance (OAA), 94,500; aid to dependent children (ADC), 105,000; permanent and totally disabled (P&D), 17,700; general relief, 11,300; blind, 4,500. A total of 3,615 physicians are participating, of which 2,872 are M.D.'s and 743 are D.O.'s.

Also participating are 257 hospitals, 37 clinical laboratories, 118 professional nursing homes, 279 practical nursing homes, 47 domiciliary homes, 1,094 pharmacies and 750 dentists.

For the fiscal year from July 1, 1968 to June 30, 1969, the state has appropriated $15,769,000 and the federal government has appropriated $25,550,000—a total of $41,289,000.

Approximately 90% of physicians' claims were being paid without problem. The remainder were being handled largely by personal contact by the Medical Director of the Division of Welfare, a small percentage being sent to the appropriate specialty review committee appointed by the specialty groups. Adequate information on the claim forms prevents delays in payment and unnecessary correspondence.

In another meeting of the Committee on Jan. 19, 1969, the Economics Committee and Interspecialty Committee met with Mr. Edward Borman of General American Life Insurance Company, one of the two fiscal agents for Title XVIII B (Medicare) in Missouri, and discussed several problems with the following decisions:

1. That Committee members recommend to their own groups and to the State Association that these organizations consider establishing a policy under which charges for paramedical services, such as injections, blood drawing, etc., be based on cost accounting not including professional services. Professional services of physicians will be charged separately.

2. That payment for mileage incurred in patient care other than to the hospital be no charge for the first ten miles (one way) and $1.00 per mile (one way) for all subsequent miles.

3. That the Committee go on record as having no objection to General American Life Insurance Company sending a statement to physicians stating that the physicians may submit "flat charges" instead of itemized bills for certain services.

In response to the request from St. Louis Blue Shield Corporation that an MSMA review committee assist in reviewing certain cases which might arise in the new UCR program, the Committee decided that any further discussion of this matter be tabled until after implementation by St. Louis Blue Shield of more democratic representation of component medical societies on the Blue Shield voting board presumably at the June,

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Dosage: One 350 mg. capsule, 3 times daily and two at edtime is suggested as the adult starting dose. Adjust to iit individual requirements. Daily doses above 3000 mg. e not recommended.

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Warnings: Administer cautiously to patients receiving ıenothiazines or other CNS depressants or having hisry of convulsive seizures (See Adverse Reactions). Conder possibility of additive actions with alcohol or other ychotropic agents, particularly phenothiazines or MAO hibitors.

Precautions: Avoid abrupt withdrawal after prolonged e, although withdrawal symptoms have not been reported date. Exercise caution in addiction-prone individuals. If mptoms of hypersensitivity occur, discontinue at once d initiate appropriate symptomatic treatment. Avoid tivities requiring optimal mental alertness if drowsiness vertigo are present. As with any new drug, use cautiously patients with history of drug allergies, blood dyscrasias, d hepatic or renal disease; periodic measurements of patic, hematopoietic and renal function should accomny prolonged and/or high doses.

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1969 annual meeting of Missouri Medical Service (St. Louis Blue Shield).

Herbert C. Wiegand, Chairman
Martin P. Hunter
G. W. Winn
Chester L. Clark
Rae W. Froelich
Russell D. Shelden
David G. Hall
A. P. Rowlette
Frank O. Richards
Charles Miller, Jr.
W. J. Ferguson
Robert H. Lund
Grover S. Patterson

(Referred to Reference Committee on Resolutions)

REPORT OF THE COMMITTEE ON CANCER

The Committee met on Jan. 19, 1969 at 2:45 PM at the Cancer Research Institute in Columbia. Members present were Dr. Charles Guliek, St. Louis; Dr. Russell Crider, St. Charles; and Dr. E. J. Schewe, Columbia, Chairman, who presided. The purpose of the meeting was to present to the Committee a plan whereby a mobile cancer detection unit can be developed, built and employed throughout the community and the state and, hopefully, eventually the country, for the mass screening of citizens for occult or early cancers. The mass screening would be conducted on the already proven principles of the chest x-ray units for the detection of tuberculosis.

Dr. Galen Cook, the originator of the plan and a member of the staff of the Ellis Fischel State Cancer Hospital and Cancer Research Institute, made the presentation.

In essence, the plan includes a trailer unit, made up of three van-type trailer units, for clinical examinations, laboratory studies and administrative and clerical work, with all interlacing functions being integrated for computer recording and analysis. In addition, the unit has a self-contained power source which operates heating, ventilation, air-conditioning, waste disposal and incineration systems. In operation, the units are joined side-by-side. It is estimated that 60 screening examinations a day can be done, the period required for the examination being approximately 45 minutes to one hour. The projected cost per patient is currently $25.

Development at this stage consists of complete specifications and plans drawn up by the Garrett Air Research Corporation, an estimated one year being required for construction of the unit. A federal grant from the National Cancer Institute extending over a two-year period and totaling $750,000 is being sought. This will permit the construction of an experimental model and its operation for a one-year period of testing.

At the termination of the presentation, a tour was conducted through a mock-up model of a portion of the unit. It is a full-scale model.

Members of the Committee were inquisitive regarding the locations at which this unit might be placed, the source of the "customers" for it, projected costs over the years and the costs on a nationwide basis, should it prove to be an effective unit. Specifically, the possibility of conflict of interests with the private practice of medicine was explored. The unit is designed for cancer detection through screening devices. Since no such function exists today in organized medicine other than the fixed base cancer detection clinics throughout urban areas, it was felt that there was no similar function with which to conflict and that nothing unethical or competitive was represented by the plan as it was presented.

Those present unanimously agreed that the plan is an ingenious one with a high likelihood of being successful and recommended that the MSMA endorse the plan as it was presented.

E. J. Schewe, Chairman
Joseph L. Fisher
Russell J. Crider
G. Neill Berry
Charles R. Gulick
Ben H. Koon
Jose M. Sala
J. Stewart Whitmore
James F. Dowd, Jr.
Eugene T. Hansbrough
William L. Drake, Jr.
Byron E. Watts

(Referred to Reference Committee on Medical Education and Public Welfare)

REPORT OF THE COMMITTEE ON MATERNAL WELFARE

MATERNAL DEATH STUDIES

Maternal death studies by the Maternal Welfare Committees of the St. Louis and Kansas City Gynecological Societies has continued and these combined studies will be presented at the annual Maternal Welfare luncheon on March 21, 1969.

ABORTION LAW

The Maternal Welfare Committee met in Columbia on Nov. 3, 1968 and reaffirmed its previous recommendations on any change in the state law related to abortion.

CHANGE IN STATISTICAL YEAR

A change in the statistical year from November to November to correspond to the calendar year was made for compilation of statistics.

OSTEOPATHIC MATERNAL DEATH STUDIES

It was voted by the Committee to again make an effort to encourage the statistical study of maternal deaths attended by osteopaths so that state statistics will be more meaningful since about 10% of births are attended by osteopaths.

PERINATAL MORTALITY STUDIES

There is evidence of increasing need for study of perinatal infant mortality in the state. The Infant and Child Care Committee discussed this with the Chairman of this Committee as a guest and studies are now conducted by a few hospital staffs in the state. The Maternal Welfare Committee recommends that a separate Perinatal Infant Mortality Committee be established by the State Association with representation in the specialties of pediatrics, obstetrics, pathology, anesthesiology, internal medicine and other areas as indicated. It was suggested that such studies be on a hospital by hospital basis with coordination by Health Commissions in the metropolitan areas.

STERILIZATION LAWS

Legality of sterilization procedures in Missouri was discussed and it was reported by legal Counsel that any sterilization procedure, male or female, under present laws could be construed as assault in spite of free will assent and permit. This Committee strongly recommends that the Council and the State Association do everything possible to insure prompt legal definition of this problem and passage of a clearly stated and understood law.

PROGRAM FOR THE ANNUAL MEETING

George H. Gardner of Northwestern University will present the paper sponsored by this Committee on March 21. The topic will be "Management of Endometriosis." Dr. Gardner will be our guest at the Maternal Welfare luncheon the same day at which time case reports of maternal deaths will be presented for discussion and the annual statistical report will be given by the Secretary of the Maternal Welfare Committee of the St. Louis Gynecological Society.

William B. See, Chairman
Irwin T. Craig
Seymour Monat
Eugene G. Hamilton
Leonard A. Wall
C. G. Stauffacher
Edward M. Grim
Raymond C. Conrad
Edmund W. Kline
Paul E. Kratz
Carl J. Dreyer
Lyman D. Brown
Thomas L. Stribling
Thomas H. McGuire
William F. McGinnis

(Referred to Reference Committee on Miscellaneous Affairs)

REPORT OF THE COMMITTEE ON INFANT AND CHILD CARE

The Committee on Infant and Child Care met on Sept. 22, 1968 in Jefferson City. After a thorough discussion, the Committee proposed that the Missouri State Medical Association appoint an appropriate special committee to survey Perinatal Care Programs across Missouri. The period involved in the study begins after 28 weeks of pregnancy and ends after 30 days of life. The Committee discussion included reports from physicians covering two St. Louis hospitals in which Perinatal studies have been conducted during the past year. It was reported that two other hospitals in Kansas City also are sponsoring such studies. It was agreed that the new committee include representatives from related medical specialties such as obstetrics, anesthesiology, pediatrics, pathology, and general practice. The Chairman of the MSMA Committee on Maternal Welfare, attending the meeting as a guest, was consulted and concurred with the above recommendations.

The Committee recommended that the Missouri State Medical Association Executive Office work in liaison with the Missouri Division of Health and the Missouri Hospital Association to improve reporting by hospitals in Missouri in compliance with the PKU Law.

The Committee reviewed and accepted a progress report submitted by the Missouri State Department of

Education, Division of Public Schools, submitted by Mr. Robert M. Taylor, Director of Health, Physical Education and Safety. This is the program approved by the MSMA House of Delegates and submitted to the State Department of Education proposing a full health course for inclusion in the public school curriculum.

MSMA Council asked the Committee to request a financial cost analysis from the Missouri Division of Health for PKU testing. The analysis is to include cost for each detected case.

Guy N. Magness, Chairman
E. J. Schwartz
James K. Mann
H. E. Peterson
Francis X. Lieb
James A. Kinder
Robert J. Harris
James J. Pascoe
Barbara E. Russell
Richard Blim
C. Read Boles
Raymond J. LaDriere
Stephen B. Pakula
Willard B. Avery
Juliette M. Eliscu

(Referred to Reference Committee on Medical Education and Public Welfare)

REPORT OF THE COMMITTEE ON MENTAL HEALTH

The Committee on Mental Health received a report from Dr. George Ulett, Director of the Division of Mental Diseases, concerning the current psychiatry residency program for Doctors of Osteopathy at the State Hospital in Nevada.

After receiving the report, the Committee made the following recommendation:

"The Mental Health Committee approves the Division of Mental Diseases training program for Doctor of Osteopathy residents in psychiatry currently at Nevada State Hospital. We strongly recommend the improvement of level of training in this program through utilization of the AMA Approved Psychiatry Residency Training Programs associated with other institutions of the Missouri Division of Mental Diseases and especially that of the University of Missouri Department of Psychiatry located at the Missouri Institute of Psychiatry on the grounds of St. Louis State Hospital. We recommend that the Doctor of Osteopathy residents in psychiatry be given supervised patient responsibility within the AMA Approved Psychiatric Residency Training Program at this Department of Psychiatry in St. Louis."

The Committee also reviewed House Bill 142, introduced in the current 75th General Assembly of Missouri, which provides for registration of Missouri psychologists under their own board. The Committee recommends that if psychologists are to be licensed, that such licensing be under the Missouri State Board of Registration for the Healing Arts.

Also, in regard to any registration of psychologists, the Committee urges that the following requirement be included: " 'Psychotherapy' is hereby defined as the treatment of nervous, mental or physical illness by psychological means. Any psychologist who engages in psychotherapy shall, in order to make provision for the diagnosis and treatment of nervous and mental illness, initiate and maintain genuine collaboration with a physician licensed by the State Board of Registration for the Healing Arts, who assumes responsibility for the total health of the patients."

James N. Haddock, Chairman
Henry V. Guhleman
Paul W. Hayes
Robert S. Terrill
Marie Mowrer
D. R. Edwards
Johannes F. Hulstra
Paul L. Barone
Edward T. Auer
Harold D. Wolff
Robert D. Brookes
Charles B. Wilkinson
Carleton J. Lindgren
Edmond V. Cowdry, Jr.

(Referred to Reference Committee on Miscellaneous Affairs)

REPORT OF COMMITTEE ON CONTROL OF VENEREAL DISEASE

The work of the Venereal Disease Committee this past year has been to implement our primary aims as stressed in our studies from the previous years and, mainly, to get into the public education system an accurate, understandable reference on venereal disease. The Committee met with a representative of the Missouri Department of Education, Mr. Robert Taylor, in an effort to determine where we could place this information in the public education system. After considerable discussion, it was agreed that a supplement to the *Missouri Guide for Health Education* be prepared, concentrating on communicable diseases with inclusion of venereal disease. A format was established and, hopefully, as the need arises or the results of pending studies by the Missouri Department of Education are available, other diseases and problems will be considered in the educational programs. This extensive task was pressed upon and accepted by Dr. Arthur Neilson of St. Louis, who, with Dr. Helen Bruce of the St. Louis City Department of Health, prepared an excellent piece of work, which has been sent to the Department of Education.

Dr. Neilson proposed the following resolution on state laws to permit minors to consent to venereal disease therapy.

RESOLUTION ON STATE LAWS TO PERMIT MINORS TO CONSENT TO VD THERAPY

Whereas, Health departments and private physicians in our 50 states are handling vastly increased numbers of venereally infected minor children, and

Whereas, The health departments and private physicians in the majority of states are often prevented by state laws from administering therapy to venereally infected minors without parental consent, and

Whereas, There is a serious epidemic of Venereal Disease in the United States, and

Whereas, In order to improve the epidemiologic control of Venereal Disease, it is of great importance to find and treat all known positive cases of VD without loss of time or loss of contact with minor patients with positive VD diagnoses, and

Whereas, Minors, who are not brought to treatment

President-Elect Doyle C. McCraw smiles as he registers for the 111th Annual Session in St. Louis. He was installed as President of the MSMA at the Presidents' Banquet on Saturday March 23.

because of deficiency in present laws, contribute to an ever increasing VD rate and are a community health hazard, and

Whereas, 14 states have, to date, updated their laws providing for confidential communication between physicians and patients, making it permissible for minors to give their own consent for treatment of the venereal diseases, therefore,

Be It Resolved, That this matter be referred to the appropriate division of the AMA and that the AMA go on record as strongly recommending a change in law to those states which do not have existing laws permitting minors to give their own consent for VD therapy.

The Committee approved this resolution and asked the MSMA Council for approval and to authorize Dr. Neilson's presenting it to the Clinic Session of the AMA. (In December, 1968, this resolution was approved by the AMA with minor changes.)

The Committee is deeply indebted to Dr. Neilson, Dr. Belden and Mr. Fox for the many hours spent in arranging, planning and the follow-up of our contact with the Department of Education.

Edwin M. Powell, Chairman
John Martin
T. E. McMillan
John C. Murphy
A. W. Neilson
Gilbert Ross, Jr.
George H. Rodgers

(Referred to Reference Committte on Miscellaneous Affairs)

REPORT OF COMMITTEE ON TRAUMA

The Trauma Committee met jointly with the Committee on Disaster Medical Care and National Defense on Sept. 29, 1968 regarding problems of mutual interest to both Committees. See Annual Report of Committee on Disaster Medical Care and National Defense.

Erin M. Dillard, Chairman
Thomas B. Ferguson
C. Keith Whittaker
Wilbur P. McDonald
Paul C. Miltenberger
Carl M. Peterson
J. Otto Lottes
John L. Barnard
W. Edward Lansche
Edwin E. Carter

(Referred to Reference Committee on Resolutions)

REPORT OF THE COMMITTEE ON EYE HEALTH

The Committee on Eye Health did not meet in formal business session during 1968. The Committee was approached by officers of the Missouri Optometric Association who suggested liaison session between the two organizations. A proposed agenda was promised and, to date, has not been received from the Missouri Optometric Association. The Committee has consulted with legal counsel periodically regarding the progress of State of Missouri, ex rel Board of Optometry vs Curteman, Inc., and Curteman. Pleadings have been prepared and filed by legal counsel of the MSMA in November, 1968. The Committee has noted with interest a proposal by the American Optometric Association for a School of Optometry in Missouri at the university level. This matter has been referred to legal counsel for comment. At the Council meeting on Dec. 14-15, 1968, the following proposal was referred by the Council to the Committee on Eye Health: To assess the problem of eye care in the State of Missouri and bring back tangible recommendations to the Council.

Flavius G. Pernoud, Chairman
Paul G. Wolff
Earl G. Padfield, Jr.
John D. Maddox
Truman R. Schertz
John F. Bradford
Wilbur H. Lewin
D. E. Eggleston
Jack Hartstein
George Mandler
H. B. Stauffer
Bill G. Prater
Wilber B. Spaulding, Jr.
Paul W. Miles

(Referred to Reference Committee on Medical Education and Public Welfare)

REPORT OF THE COMMITTEE ON DIABETES MELLITUS

Although the Committee did not meet officially in 1968, four members who belonged to the Missouri State Diabetes Association had various discussions about problems.

As in the past, there were three areas in which diabetic detection studies were done. They are as follows:

1. The Diabetes Lay Society of Greater Kansas City performed detection by using a one-hour postprandial glucose determination done by the Detrostix Method. Three thousand eight hundred and fifty-eight tests were performed and 271 were found to be positive by their criterion of a determination greater than 120 mg per

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100 ml. The results of the follow-up studies by the glucose tolerance test method are not available at this time.

2. The Missouri Division of Health performed detection studies in Dallas, Hickory and Jefferson Counties by the Unipet Technic. This method yielded a percentage of positive tests similar to those done by other studies, namely about 1.29%-2.2% of those tested.

3. The St. Louis Diabetes Association in 1967-1968 detection, in which three of the Committee Members are active, distributed more than 189,929 Dreypaks. Of this number, only 11.3% were returned for processing for the presence of glucose and approximately 4.5% (1,010) were positive. Four hundred and eighty-six persons with a positive Dreypak had a free one-hour and two-hour glucose tolerance test performed. Of these tests, 154 (32%) were found to be compatible with a diagnosis of diabetes.

As in the past, the Committee has always stressed that these three methods of testing were used for detection of diabetes in the high risk group and are not to be used for diagnosis. The clinical diagnosis of diabetes mellitus is to be made by the private physician.

It is the Chairman's belief that such a committee could become more active if the Missouri State Diabetes Association would invite the members of the Committee to their Annual Meeting. Perhaps this could be accomplished very easily by having one of the Diabetes Association Meetings with the annual State Medical Meeting.

Again, the Committee wishes to emphasize that detection studies do educate the public of the importance of diabetes, as well as other diseases.

Harold K. Roberts, Chairman
Lucien W. Ide
H. E. Oppenheimer
Thomas W. Burns
Donald A. Black
William H. Olmsted
Loren Broaddus
C. C. Cohrs
Harold D. Ridings

(Referred to Reference Committee on Medical Education and Public Welfare)

REPORT OF COMMITTEE ON ANESTHESIOLOGY

No business was referred by the MSMA Council to the Committee on Anesthesiology and, therefore, no Committee meeting was scheduled. The Committee collaborated with the Missouri Society of Anesthesiologists in sponsoring a one-hour program during the 111th Annual Session. The topic is "Inhalation Therapy for the Community Hospital" for Friday, March 21, 1969, at 11 am to 12 noon. Complete details are contained in the official program.

Harold J. Freiheit, Chairman
W. W. Tillman, Jr.
Karl K. Ness
S. Ross Melgaard
Kenneth Keown
John P. Eberle
George R. Weeks
Robert B. Dodd
James S. Gordon
Merritt H. Kimball

(Referred to Reference Committee on Medical Education and Public Welfare)

REPORT OF COMMITTEE ON LABORATORY MEDICINE

The Council of the MSMA referred to the Committee on Laboratory Medicine requesting study and an opinion by the Laboratory Medicine Committee of a recommendation by the Committee on Disaster Medical Care and National Defense for an amendment to the existing Missouri Driver Licensing Law which would change .15% blood alcohol maximum to .10% blood alcohol. The New 1966 National Highway Safety Act Standard is .10%. The Committee, following study, recommended that the standard of .10% be established and the necessary state law amendment be supported if introduced in the 75th Missouri General Assembly.

The MSMA Council referred a recommendation by the Committee on Control of Venereal Disease for study and a report back to the Council regarding R.P.R. cards for testing of venereal disease. Following study, the Laboratory Medicine Committee reported to the Council that the "R.P.R. cards should continue for the present on an experimental basis in a few laboratories."

The Committee on Laboratory Medicine recommends approval by the Missouri State Medical Association House of Delegates and support of state legislation to implement enactment of a law as proposed by the Uniform State Laws Commission and published in *The Bulletin of the National Society for Medical Research*, December, 1968, entitled "Uniform Anatomieal Gift Act." The House of Delegates of the American Medical Association, at the Clinical Session, 1968, approved this proposed law for implementation at the state level.

Following study by the Committee on Laboratory Medicine, the proposed law to be introduced to the Missouri General Assembly in 1969 regarding Medical Examiner should be supported by the Missouri State Medical Association. The proposed bill was drafted very similarly to the bill introduced in the 74th Missouri General Assembly in 1967.

Omer Hagebusch, Chairman
William R. McPhee
Henry C. Allen
Richard V. Riddell
Victor B. Buhler

(Referred to Reference Committee on Miscellaneous Affairs)

REPORT OF JOINT COMMITTEE ON DISASTER MEDICAL CARE AND NATIONAL DEFENSE AND COMMITTEE ON TRAUMA

The joint committee meeting of the Disaster Medical Care and National Defense Committee and the Trauma Committee was held on Sept. 29, 1968 in Jefferson City and a subsequent meeting was held on Nov. 13, 1968. The Committees discussed the Drunken Driver Law and stated that the present law should be revised from 0.15% blood alcohol to 0.10% blood alcohol as required by the 1966 National Highway Safety Act. They request that the Council support such legislation and, also, support a change in the present law which now reads "milligrams of alcohol per 100 *milligrams*" and should be changed to read "milligrams of alcohol per 100 *milliliters.*"

The Committees recommend that the Council and State Association lend their influence, effort and, if necessary, witnesses to support legislation which will help make the Missouri law comply with the 1966 National

Highway Safety Act, specifically that portion applying to ambulance personnel, equipment and operation. The Committee also suggests that certain materials be sent to the membership requesting their support at the local level by contact with legislators emphasizing concern for safety on Missouri highways.

The Committee has pointed out that a Good Samaritan bill probably will be introduced in the coming legislative session which would protect against civil suit "any person rendering aid to the injured, excluding gross negligence, at the scene of a highway accident" and has requested Council support for such legislation.

The joint Committees also discussed the lack of communication between emergency vehicles and bases of operations, as well as hospitals, and have recommended that the Council approve and provide aid where possible in the formation and implementation of emergency medical services and, in particular, emergency ambulance services in outstate Missouri.

It was noted that the University of Missouri School of Medicine at Columbia is providing ambulance personnel training programs. It also is providing training for Emergency Medical Technicians in an outstate Missouri program as well as community technician training which, with the approval of prospective county medical societies, will provide training for morticians, ambulance operators, firemen or policemen at the local level. The joint Committees are working with the University of Missouri and the Extension Service to provide a one-day program on emergency medical care to be scheduled in April or May, 1969, the theme of which shall be "Community Action for Emergency Medical Services."

A Sub-Committee headed by Carroll Hungate, M.D., outlined a proposed program on emergency medical care, proposed for the MSMA Annual Session in 1970 which will provide one-half day of information on emergency medical services. In order to provide the mentioned program in 1969, certain funds were requested from the Council to provide for a budget allowing for the above program, plus travel expenses for out of state and local speakers and a modest honorarium. The sum of $800 was requested to help finance this project.

It is suggested by the two Committees that since there is a great deal of overlapping in their endeavors to act upon similar problems, these two Committees be dissolved and in their place there be formed a Committee on Emergency Medical Services.

John T. Crowe, Chairman
George L. Watkins
Carl D. Siegel
Carroll P. Hungate
William F. Bell
Durand Benjamin
Ned B. Chase, Jr.
Allen P. Klippel
O. P. Hampton
Joseph P. Russell
Robert B. Young
Thomas B. Cook
W. Alexander Hoja
John L. Mothershead
Louis P. Hetlage
Marshall B. Conrad
H. M. Hardwicke

(Referred to Reference Committee on Resolutions)

REPORT OF THE COMMITTEE ON PUBLIC SERVICE

Two members of your Public Service Committee, Dr. Doyle C. McCraw and the Chairman, attended the two-day Communications Institute of the AMA in August, 1968 in Chicago.

The two days of meetings provided much valuable information and we were privileged to hear nationally-known public relations experts L. L. L. Golden of New York, as well as Phillip Lesly of Chicago, in addition to men who are well versed in the field of medicine and public affairs.

The Chicago meeting provided important background information for our own Second Annual County Medical Society Officer's Conference which was held on January 11 and 12, 1969 at the Ramada Inn, Jefferson City.

In fact, the Chicago meeting provided us with our keynote speaker, Mr. James Reed, AMA Communications Director, who was on our Conference program.

The meeting was designed for officers, legislative and public relations chairmen of county societies, Association officers and members. Its principal purpose was to improve the relationships between the State Association and its local societies and to alert society leaders to the broad programs and policies of organized medicine.

Our speakers, in addition to Mr. Reed of the AMA, included two members of our State Legislature, who told those in attendance that physicians need to know their own representatives and to be familiar with legislation in the health field; the Director of the Missouri Comprehensive Health Planning Agency, who discussed progress made to date in his field; and a newspaper publisher from Mexico, Mo., who took a look at the medical profession from the viewpoint of a newspaperman.

The Sunday morning portion of the program was de-

It was all in fun, but when MSMA Treasurer Max Franklin saw Vice-Speaker E. D. Imes at the registration desk, he "checked" his credentials!

voted to organized medicine as seen through the eyes of those who are a part of it and included talks on the AMA, the MSMA and the County Society. Small discussion groups talked about many varied problems facing our profession and reports were made to the entire group from each discussion session.

Among the topics which were brought up during the discussion period were ways to provide more physicians for rural areas of Missouri; ways to upgrade the postgraduate education of osteopathic physicians, including their possible participation in training programs at M.D. hospitals; ways to make physicians more aware of the need to improve relationships between the medical profession and the legislative assemblies of government at all levels; ways to place more interested physicians on State Association committees with one thought being that recommendations should be sought from all county society presidents; ways to improve attendance at MSMA committee meetings, including a possible "conference telephone call" before the meeting to stimulate interest in topics for discussion; ways to stimulate nonmember physicians to join the mainstream of medicine with thought being given to licensure examination periodically for those who are not active members of county societies and regular meeting attendants; the possibility of holding interim sessions of the MSMA House of Delegates at which political speakers could be utilized and expenses paid by the delegates themselves; seating of specialty group presidents as automatic members of the House of Delegates with the right to vote; ways to provide more uniform means of teaching medical ethics and ways to better relations between the profession and news media, including the idea that societies should have a committee or individual to serve as a spokesman for the organization with the various news media.

The Committee recommends that thought should be given to all of the items mentioned above.

A special workshop was held for society presidents at the Conference and another for secretaries. Other participants sat in on a third group.

Your Committee recommends that another conference of this type be held and that possible consideration be given to making this meeting a part of an interim session of the House of Delegates which would be keyed to matters of social and economic importance.

It is customary for the Committee to report on public service expenditures made by MSMA each year, including fees paid to the Association's Public Relations Counsel, even though such fees cover work done for other committees and in connection with other Association activities. Total expenditures for 1968 amounted to $9,876.82.

As of January, 1969, a formal contract with the former outside public relations firm was not renewed. Activities involving public relations will be handled by staff personnel.

Gerald L. Miller, Chairman
David N. Kerr
Doyle C. McCraw
Armand Brodeur
Kenneth Glover

(Referred to Reference Committee on Reports of Officers.)

REPORT OF COMMITTEE ON LEGISLATIVE MATTERS

The Committee has been working closely with the Council to carry out policies established by the House of Delegates concerning legislative matters.

A large number of bills pertaining to medicine and public health have been introduced in the 75th General Assembly which is now in session in Jefferson City. All of these are being closely observed.

The Committee is working diligently to implement and improve a legislative contact system with both state and national representatives and senators.

John I. Matthews, Chairman
David N. Kerr
Doyle C. McCraw
Joseph L. Fisher
Gerald L. Miller
Stanley S. Peterson
J. Loren Washburn
Arthur W. Neilson
Hector W. Benoit, Jr.

(Referred to Reference Committee on Miscellaneous Affairs)

REPORT OF THE COMMITTEE ON ALCOHOLISM (SPECIAL)

Recent findings of research studies on incidence and effects of alcoholism, according to the National Council on Alcoholism, indicate the following:

a. 30%-40% of all delinquent youths come from homes where parental excessive drinking or alcoholism exists.
b. 50% of all delinquent drivers involved in fatal auto accidents are alcoholics.
c. 49% of all police arrests are alcohol-related and 63% of these involve alcoholics.
d. 37% of family court cases involve excessive drinking or alcoholism.
e. 37% of all suicide subjects are chronic alcoholics.
f. 10%-25% of all families on welfare have an alcoholic member.

It is imperative, therefore, that each member of the medical profession accept his portion of the responsibility to aid in combatting this disease.

The Alcoholism Committee requests of the Council of MSMA and of the House of Delegates that this message be brought to each member of MSMA and that all be asked to assist in a program of education about alcoholism.

Specifically, we make the following recommendations:

1. That a Symposium on Alcoholism be a part of each MSMA Annual Meeting.
2. That MSMA aid its various component societies in obtaining and presenting speakers on alcoholism at their meetings.
3. That MSMA urge each local society to appoint a Committee on Alcoholism and request that this committee arrange meetings on alcoholism for medical and allied professions, the clergy and the general public. Such committees also could furnish speakers to address our youth in high school, church and other groups.
4. That the Committee on Alcoholism make a survey of all general hospitals in Missouri regarding ac-

ceptance of alcoholics as patients (MSMA to furnish assistance in making the survey).

5. That all general hospitals in Missouri once again be urged by MSMA to accept alcoholics for treatment on the same basis that they accept patients with any other disease.
6. That MSMA aid in obtaining more training of hospital medical and paramedical personnel in the field of alcoholism.
7. That MSMA seek help in obtaining such training programs from the Alcoholism Program of the Division of Mental Diseases of the State of Missouri which already is presenting such courses for state personnel.
8. That MSMA urge the medical schools in our state to offer their students more training in the area of alcoholism.

The Committee also recommends that:
MSMA commend the Missouri State Alcoholism Program for the great strides it has made in two short years and that MSMA offer to cooperate with the State Program in any way it can to abet its program.

Finally, we recommend that the incoming President of MSMA appoint an Alcoholism Committee so that efforts to control this great public health problem can be continued.

Joseph B. Kendis, Chairman
Max E. Teare
Evelyn Griffin
Tom R. Burcham, Jr.
Kathleen Smith

(Referred to Reference Committee on Medical Education and Public Welfare)

REPORT OF THE COMMITTEE ON INDUSTRIAL HEALTH (SPECIAL)

The Committee on Industrial Health, in cooperation with the Medical-Legal Committee of the Association, is sponsoring a portion of the scientific program on Saturday, March 22, at this Annual Meeting. A presentation on "The Medical Report—Use and Abuse" will be given from 11 AM to 12:30 PM. We invite your attention to the Official Program for further details.

The Committee also directs your attention, as well as that of the entire membership of the MSMA, to the Congress on Occupational Health which will hold its 29th Session at the new Stouffer Inn, St. Louis, on Sept. 15-16, 1969. This Congress is sponsored by the Council on Occupational Health of the American Medical Association of which Richard A. Sutter, M.D., St. Louis County, serves as a member. All members of the MSMA are cordially invited to attend this 1969 Congress.

John W. Berry, Chairman
Paul J. Centner
William L. Macon
Van W. Taylor
Richard A. Sutter
Horace A. Lowe, Jr.
C. R. McAdam
Grosvenor Roberts

(Referred to Reference Committee on Medical Education and Public Welfare)

Fourteen Missouri physicians were honored by the MSMA for completing 50 years in medical practice. *(Left to right)* Drs. Urban J. Busiek of Springfield, Clarence H. Kilker of Normandy, Edwin H. Rohlfing of Clayton and William F. Neun of St. Louis were present at the first session of the House of Delegates to receive their 50 year pins.

REPORT OF COMMITTEE ON NURSING AND PARAMEDICAL PERSONNEL (SPECIAL)

The Committee has continued to function in close cooperation and rapport with the Missouri State Board of Nursing, the Missouri Nurses' Association, the Missouri League for Nursing and the Missouri Hospital Association and has been aided in its efforts by the activities of the Woman's Auxiliary to the Missouri State Medical Association. The Committee has continued to be particularly concerned with present and projected manpower shortages in the fields of nursing and paramedical personnel and has continued to urge vigorous remedial action NOW. A key obstacle to expanded nursing education has been a shortage of properly qualified teaching personnel, and, unfortunately, the academic institutions in Missouri have failed, in the opinion of this Committee, to make adequate provisions for training of larger numbers of such personnel. The Committee views with particular concern the discontinuation by Washington University in St. Louis of its academic nurse training program. In the opinion of the Committee, every effort should have been made not only to continue such training, but to significantly increase its productivity in both the Baccalaureate and Masters Programs. The establishment of further refresher courses for inactive nurses at many Missouri hospitals is welcomed by the Committee, but we remain convinced that this step alone will fail by a wide margin to provide for future personnel needs.

The Committee recommends endorsement by the House of Delegates of a project on Health Careers Recruitment, which is to be undertaken by the Missouri Hospital Association and funded by the Missouri Regional Medical Program in the amount of $500,000 covering a period of three years. In this connection, the Committee also has recommended approval for a statewide nursing study projecting nursing needs to 1990 and has recommended that this study be tied in with the Missouri Hospital Association project. The Clearing House operation initiated by the Missouri State Medical Association at the instigation of this Committee is to be

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Before prescribing, please consult complete product information, a summary of which appears on opposite page.

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(Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl.)

Azo for the pain
Gantanol®
(sulfamethoxazole)
for the pathogens

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Urinary tract infections with associated pain or discomfort when due to susceptible organisms; prophylactically in urologic surgery, catheterization and instrumentation.

Contraindicated in sulfonamide-sensitive patients, pregnant females at term, premature infants, newborn infants during the first three months of life, glomerular nephritis, severe hepatitis, uremia and pyelonephritis of pregnancy with gastrointestinal disturbances.

Warnings: Use only after critical appraisal in patients with liver damage, renal damage, urinary obstruction or blood dyscrasias. If toxic or hypersensitivity reactions or blood dyscrasias occur, discontinue therapy. In closely intermittent or prolonged therapy, blood counts and liver and kidney function tests should be performed.

Precautions: Observe usual sulfonamide therapy precautions including maintenance of an adequate fluid intake. Use with caution in patients with histories of allergies and/or asthma. Patients with impaired renal function should be followed closely since renal impairment may cause excessive drug accumulation. Occasional failures may occur due to resistant microorganisms. Not effective in virus and rickettsial infections.

Adverse Reactions: Headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, Stevens-Johnson syndrome, injection of the conjunctiva and sclera, petechiae, purpura, hematuria or crystalluria may occur, in which case the dosage should be decreased or the drug withdrawn.

Dosage: Adults—4 tablets initially, then 2 tablets morning and evening.

How Supplied: Tablets, bottles of 50.

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transferred and widened in scope and effectiveness under future Missouri Hospital Association sponsorship.

The Committee again recommends a call for gubernatorial action which has not been taken as yet (in spite of previous requests by the Association) in the following areas:

1. Direct gubernatorial request to the Board of Curators of the University of Missouri that the Masters Degree Program in nursing be significantly enlarged in scope. Also, that the Curators and Trustees of all state-operated institutions of higher learning direct that nurse education programs either be instituted or, if in existence, be enlarged.

2. Similar urgent pleas, with offers of assistance (where called for and feasible), be directed to the private institutions of higher learning in Missouri.

3. A direct gubernatorial request to the state-controlled institutions of higher learning to set up special training programs for discharged veterans of the medical service branches with emphasis on fields in which past experiences can be optimally utilized and with consideration being given to credit for past training and experience. Special incentives should be provided to emphasize such fields for which male nurses are particularly suitable, such as psychiatric nursing, GU nursing, emergency room technology, intensive care units and coronary care units.

4. Demands should be made by the governors of the various states that the federal government make serious efforts to encourage medical service personnel about to be discharged from the Armed Forces to pursue careers in the nursing and paramedical fields. If adequate training facilities and credit allowances for past experience and training can be made available to such persons, a considerable source of effective, new career personnel could be obtained.

The Committee also moves that the Missouri Delegates to the American Medical Association Annual Session in June, 1969 urge the AMA House of Delegates to endorse the recruitment and accredit the training of male nursing educators and students and moves to instruct the Delegates to present the following Resolution to the House of Delegates of the American Medical Association:

> WHEREAS, The present supply of nursing personnel in the United States does not meet the demand, and
>
> WHEREAS, This imbalance in the next decade as indicated by survey will become more acute, and
>
> WHEREAS, Pilot experience indicates interest of male recruits in selective nursing position, and
>
> WHEREAS, Current efforts by the United States Government are inadequate in the recruitment of discharged medical service personnel into health careers open in this country, and
>
> WHEREAS, The medical schools in the United States have made inadequate provision to properly utilize the experience and past training of such medical service personnel by not providing for availability of further training and utilization, therefore be it
>
> *Resolved*, That the House of Delegates strongly advocate action by the legislative and executive branches of the government of the United States to take all the necessary steps to promote the above outlined objectives.

The Committee is most grateful to the Woman's Auxiliary of the Missouri State Medical Association for

Mrs. E. F. Butler, President of the Woman's Auxiliary to the MSMA, addresses the first session of the House of Delegates. She reported on the activities and accomplishments of the 29 county auxiliaries in Missouri.

its enthusiastic cooperation in recruitment activities at the grass roots level. Continued cooperation with local branches of the League for Nursing and the Nurses' Association promises to be most fruitful.

The Committee recommends that the Missouri State Medical Association again lend its active support to the principle of adequate pay scales for professional nursing personnel and paramedical services.

John H. Walters, Chairman
Manning E. Grimes
Joseph Cope
James M. Flynn
A. J. Signorelli
R. Stacy Long
John R. Esther

(Referred to Reference Committee on Medical Education and Public Welfare)

REPORT OF COMMITTEE ON RURAL MEDICAL SERVICE (SPECIAL)

The Committee's primary activity for the year has been directed toward implementing a meaningful First Aid Course for students of the elementary and secondary schools in the state of Missouri. Variations in educational programs of the school districts in Missouri—some compulsory, some elective, some combined with driver's education, some with first aid in their physical education courses and a great number with no organized first aid courses—has been a real problem.

The Committee on Rural Medical Service is cooperating with the State Department of Education through Mr. Robert Taylor, Department of Education, and Mr. Michael H. Bohan, State Supervisor of Driver and Safety Education, in an attempt to present first aid on a continuing basis to large numbers of receptive students throughout Missouri and to keep medical training and dissemination of medical information, as well as medical programs, under the leadership of organized medicine.

The Committee, with the cooperation of Denny Donnell, M.D., of the University of Missouri faculty, volunteered to author Unit Structure 14 of Chapter 6 in the revision of "A Guide for Driver Education, 1959." This is the curriculum guide used by all driver education instructors in the public schools of Missouri. The unit's title is "Post-Crash First Aid." We have recommended that six hours of classroom time be devoted to "Post-Crash First Aid." We believe that prior first aid training will not adequately satisfy this unit's objective. The objectives of the unit are that the student will:

1. Recognize the legal responsibilities and moral obligations in the "Post-Crash" situation and act accordingly.

2. Recognize the potential roadside hazards to both himself and to the crash victims and take necessary steps to avoid these hazards.

3. Be able to carry out the four phases of first aid prior to transportation of the injured to a medical facility. These four phases are (1) check for and deal with life-reckoning problems of airway blockage, lack of breathing and massive bleeding, (2) examine other injuries from head to toe, (3) prepare the injured individual for transportation and (4) continue first aid until or, if necessary, during transportation.

The course will attempt to teach the student to differentiate between those conditions which are life threatening and those which are not. Also, it will attempt to emphasize that the student do no harm to those to whom he will give first aid.

The course will emphasize to the student his responsibilities in and his method of (1) assuring an open airway, (2) mouth-to-mouth resuscitation, (3) the covering of open chest wounds, (4) the splinting of flailed chests, (5) the control of massive bleeding, primarily through pressure dressings and the suggestions of available dressing materials on sight, (6) the recognition of shock and its care, (7) the observation of the unconscious patient and, when possible, listing the findings of the patient at the site of the accident, (8) the recognition of fractures and application of splinting materials and (9) the methods of movement of the injured patient.

The course will utilize lectures, demonstration and practice of the above, as well as visual aids, films and reference books for outside reading.

Mr. Taylor of the Department of Education has assured this Committee that further revision needs of the manual will be returned to the Missouri State Medical Association rather than other agencies for the imparting of future medical information and training to these lay audiences.

It is our opinion that the section on "Post-Crash First Aid" has been simplified to the point that the driver education instructor will feel confident to impart the information to the student and that the subjects are few enough in number, but comprehensive enough to promote confidence in the trainees and, therefore, provide competent first aid to those who require it on the highways and rural areas of the state. We hope that the preparation of this First Aid Course for dissemination to the students in the schools of Missouri can become a basis through which organized medicine and the MSMA can grasp the reins of disseminating and teaching information to students and, perhaps, to other audiences. It seems to us that all too often in the past that technical information has been derived from the medical profession, but the presentation to the public has been through federal and state agencies, the American Cancer Society, American Red Cross, etc. Perhaps medicine can improve its public relations by appearing directly before the public with its own programs.

There are many other problems in the state of Missouri that need updating and the Committee on Rural Medical Service now feels its attention should be turned to cooperation with other agencies and other committees of the MSMA to help promote ambulance attendants training at the local level for citizens who will be involved. A training program now has been firmly established at the University of Missouri through the efforts of Dr. Marjorie Dale and Dr. Frank Mitchell. After participating in the University of Missouri course, the person administering first aid can give more advanced care to the injured patient during transportation to the definitive care facility. We believe we must investigate and help promote continued availability of ambulance service to the people of Missouri. At the present, possibly through misunderstanding, many morticians, who also have been the operators of ambulance services in communities for many years, have announced discontinuation of their services because of "requirements by the state and federal government." The only federal rulings that have come through the Federal Highway Safety Act of 1966, which did place certain establishments under the Wage and Hour Laws, became effective Feb. 1, 1969. Those affected, however, are (1) ambulance service companies and (2) mortuaries that operated ambulance service that gross more than $250,000 a year and whose employees spend more than 20% of their time providing ambulance service.

It is the opinion of those who have made a study of the combined services throughout rural Missouri that few, if any, mortuaries will fall under the requirements of this law. It also is being stated that requirements for ambulance equipment in the state of Missouri has been upgraded to the point that the operators no longer are able to afford to continue in their work. This simply is not true. At present, no bill has even been presented to the General Assembly of the state of Missouri nor is it anticipated that one will be presented during the year of 1969. It is true that, as ambulance equipment is being replaced, the people who have made studies of the types of equipment will urge the use of those types of equipment most applicable to improve patient care during transportation. In Missouri, this is Robert Wheeler, Ph.D., Associate Professor of Civil Engineering at the University of Missouri. The citizens of Missouri and the members of the medical profession of this state do need the people who have given us good ambulance service throughout the years, and the profession must make every effort to see that the equipment and the personnel are present to deal with the injured victims on our highways. It behooves the Association to help communities throughout the state to solve their problems in maintaining ambulance service. The Rural Medical Service Committee will do everything within its power to cooperate with those who wish to advance this proposal.

The Committee on Rural Medical Service believes that it must help promote legislation for establishment of the required use of the slow moving vehicle emblem on the slow moving vehicles on the roads in Missouri. Nine states have passed such legislation. Ten states have no bill introduced, and Missouri falls into this category. Bills are expected to be developed in eight states, have been developed in eight more states and are in the process of legislation in six states. The emblem is mandatory in six other states and is permissible in two states. The emblem stands as an alternate to other markings on equipment in eleven states. The AMA Council on Rural Health urges that all state medical associations resolve to officially endorse the slow moving vehicle emblem and the objectives for which it stands and that MSMA, in cooperation with its county societies, promote the slow moving vehicle emblem and help educate the public to recognize it as identifying those vehicles, until legislative action can be definitive. Sources of supply of the slow moving vehicle emblem are the Chairman of the Committee on Rural Medical Service of the Missouri State Medical Association or Mr. Tom Fox, Executive Assistant, in the Association Headquarters in Jefferson City.

An attempt to improve rural health manpower and physician placement in this area has been, is and shall continue to be a major area of concern to the Association as well as this Committee. We believe that a concerted effort should be made by organized medicine at all levels, along with related health agencies, to secure more physicians in rural areas.

We believe that the Committee should investigate the possible arrangement for coverage of private practitioners' services in the state by hospital residents to encourage the attendance of physicians at postgraduate training programs. If such an arrangement could be made, we believe a mutual advantage could be realized by all parties concerned. It would provide additional income for the hospital resident, could give him additional training in the private practice of medicine and, thereby, provide an area not reached by the medical centers and free the private practitioner for further training without the loss of medical service to the citizens of the state.

These and other subjects which may be brought to the attention of the Committee will be considered during the coming year.

Charles A. Worley, Chairman
B. J. Bass
Charles C. Reeder
James H. Sweiger
K. S. Latham
H. F. Hoelscher
James E. Campbell
Robert J. Bareis

(Referred to Reference Committee on Resolutions)

REPORT OF COMMITTEE ON STUDY OF CARDIAC DISEASE (SPECIAL)

The Committee on the Study of Cardiac Disease participated in the negotiations regarding the resolution on Cardiac Resuscitation by Nurses, which ultimately was adopted by the Missouri State Medical Association, the Missouri Nursing Association and the Missouri Hospital Association.

In addition, the Committee carefully considered two projects proposed by the Missouri Heart Association under grants from the Missouri Regional Medical Program for Heart Screening and Primary Prevention of Rheumatic Fever. Both of these projects were endorsed by the Committee, approved by the Council of the Missouri State Medical Association and have now been initiated by the Missouri Heart Association.

James G. Janney, Jr., Chairman
James Mackenzie
R. E. Stufflebaum
William J. Shaw, Sr.
Jack S. Sanders
Keith H. Averill
C. Rollins Hanlon
Don J. Stallard
David V. Miller
Joseph C. Edwards
J. Tenbrook King
Morris Alex

(Referred to Reference Committee on Medical Education and Public Welfare)

REPORT OF COMMITTEE ON ENVIRONMENTAL HEALTH (SPECIAL)

In establishing the new Committee on Environmental Health, the Missouri State Medical Association has shown its concern regarding the long-range health consequences of the use of biological and chemical agents which modify the environment and the effect that air, water and soil pollution may have on the health of all citizens.

The Committee on Environmental Health will be working to implement the resolves of the House of Delegates in establishing such a committee. The Committee did not have a full meeting during 1968. Considerable preparatory and exploratory work has had to be done before a meeting would be meaningful.

The Committee Chairman attended the Environmental Health Committee Conference of the American Medical Association in Chicago and met with AMA executives working in this field. A meeting also was held with representatives of the Conservation Commission concerning an Environmental Health display which would vividly depict how changes in the environment along with pollution affects all mankind. Plans for such a display have been drawn and are ready for Committee consideration. Such a display will be available for medical meetings, state fairs and all public gatherings. The display will be under the auspices of the Missouri State Medical Association.

The AMA has provided environmental health material packets for all members of the Committee so that they will have background knowledge of the problems and possible solutions. In addition, contact has been made with the Missouri Department of Health, the Missouri Water Pollution Board, the Missouri Air Conservation Commission, and the Missouri River Public Water Supply Association. Cooperative efforts between the MSMA Environmental Health Committee and all agencies working in this field are planned.

A meeting of the full Committee will be held early in 1969. Plans for the display will be presented to the Committee along with other proposed projects in the field of environmental health.

A. W. Neilson, Chairman
E. A. Stricker
Paul T. Luckenbill
Horace A. Lowe, Jr.
Lloyd A. Hollinger

(Referred to Reference Committee on Miscellaneous Affairs)

THE FOLLOWING COMMITTEES . . .

Had no assignments or meetings during the past year and have no formal reports to make to the House of Delegates. Many members of these committees were busy, however, keeping informed in their area of interest, representing the Association at meetings and conferences, and assisting in arranging programs for both medical and lay groups. The Committees on Medical Economics, Maternal Welfare, Industrial Health and the Medical-Legal Committee are sponsoring parts of the program for this Annual Session of the MSMA.

AGING
CONSTITUTION AND BY-LAWS
MEDICAL DEFENSE
MEDICAL-LEGAL (SPECIAL)
PHYSICAL MEDICINE AND REHABILITATION
RADIOLOGY AND IONIZING RADIATION
TUBERCULOSIS (SPECIAL)

The Speaker noted that all minutes of Council meetings for the past year, other than the February and March meetings, were published in the booklet of "Official Reports to the House of Delegates." He pointed out that the minutes of the Council meeting in February were published in the Delegates' Handbook and the minutes of the Council meetings in March, 1969, appear in the supplementary Council Report at this First Session.

THE COUNCIL

The Speaker stated that the reports of Council Meetings are referred to the Reference Committee on Reports of Officers except those specific portions which are referred to other Reference Committees. These portions are preceded by a black square (■) and are concluded with the committee assignment, which is in bold face type.

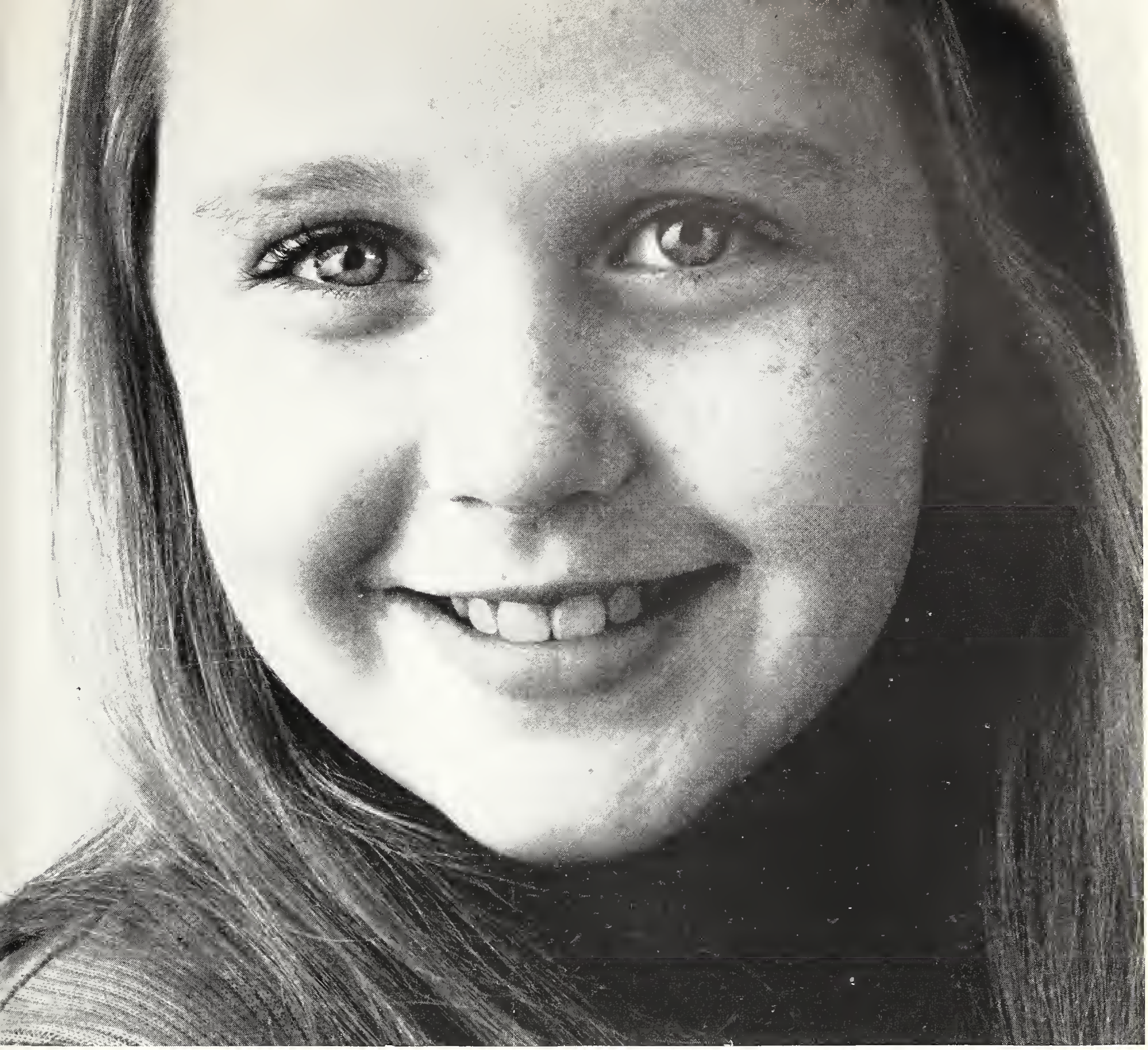
Meeting of March 31, 1968

David N. Kerr, M.D., St. Louis, President, called the meeting to order. Those attending the meeting were Drs. Kerr; Doyle C. McCraw, Bolivar; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; Paul F. Max, St. Louis; Joseph L. Fisher, St. Joseph; Lysle M. Bach, Hannibal; Walter T. Gunn, St. Louis; Robert A. Mayer, Clayton; James C. Cope, Columbia; Rolla B. Wray, Nevada; Gerald L. Miller, Kansas City; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; W. D. English, Cardwell; Hector W. Benoit, Jr., Kansas City; Stanley Peterson, Springfield; J. Loren Washburn, Versailles; Arthur W. Neilson, St. Louis; Messrs. John W. Noble, Kennett; Ray McIntyre and Don Brummall, Jefferson City.

Doctor McCraw introduced Dr. Howard J. McAlhany, Springfield, the new Councilor from the 8th District who was elected to fill the unexpired term of Doctor McCraw, President-Elect of MSMA. The Council extended congratulations to Drs. Fisher, Gunn, Cope, Miller and Stricker who were reelected Councilors from the 1st, 3rd, 5th, 7th and 9th Districts, respectively.

At the election of officers, Dr. Joseph L. Fisher was nominated and unanimously elected Chairman of the Council and, thereby, became the presiding officer. Dr. Gerald L. Miller was nominated as Vice-Chairman of the Council, Dr. Max S. Franklin was nominated as Treasurer and Dr. John I. Matthews was nominated as Secretary. On motion, each was unanimously elected.

Doctor Cope called attention to the fact that Dr. Byron M. Stuart was absent for the first time in 12 years



UNIVERSITY OF MARYLAND

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Contraindications: Infections caused by nonsusceptible organisms; history of penicillin sensitivity.
Warnings: Acute anaphylaxis (may prove fatal unless promptly controlled) is rare but more frequent in patients with previous penicillin sensitivity, bronchial asthma or other allergies. Resuscitative (epinephrine, aminophylline, pressor amines) and supportive (antihistamines, methylprednisolone sodium succinate) drugs should be readily available. Other rare hypersensitivity reactions include nephropathy, hemolytic anemia, leucopenia and thrombocytopenia. In suspected hypersensitivity, evaluation of renal and hematopoietic systems is recommended.
Precautions: In suspected staphylococcal infections, perform proper laboratory studies including sensitivity tests. If overgrowth of nonsusceptible organisms occurs (constant observation is essential), discontinue penicillin and take appropriate measures. Whenever allergic reactions occur, withdraw penicillin unless condition being treated is considered life threatening and amenable only to penicillin. Penicillin may delay or prevent appearance of primary syphilitic lesions. Gonorrhea patients suspected of concurrent syphilis should be tested serologically for at least 3 months. When lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. Treat beta-hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent rheumatic fever or glomerulonephritis. In staphylococcal infections, perform surgery as indicated.
Adverse Reactions: (Penicillin has significant index of sensitization): Skin rashes, ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; serum sickness-like reactions, including chills, fever, edema, arthralgia and prostration. Severe and often fatal anaphylaxis has been reported (see "Warnings").
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and commented upon the fact that he would be missed.

Doctor Miller moved that the Council extend congratulations and commendation to Doctor Benoit for a great year of leadership as President of the MSMA. Personal appreciation also was extended to Doctor Benoit.

Doctor Fisher opened the business meeting by stating that there were two items to be discussed: (a) the report of the MSMA Ad Hoc Committee made to the Council on the previous Saturday and (b) the letter received from the Director of the Division of Welfare regarding regulations of injectable medication.

There was a discussion of the Ad Hoc Committee's report made at the Council meeting on Saturday, March 30 and the Council's supplementary report to the House of Delegates on Sunday morning, March 31, which was approved by the House of Delegates. Doctor Neilson suggested that the report be referred to the AMA Delegates and the Chairman of the Ad Hoc Committee so that they could work out a definite plan of presentation and advise the Council of their plan at the next session. He asked that the Council give the AMA Delegates instructions to proceed.

After further discussion, on motion of Doctor Benoit, duly seconded, it was agreed that the Chairman of the AMA Delegation from Missouri, in conjunction with the Chairman of the MSMA Ad Hoc Committee, call a meeting of that committee and the AMA Delegates and Alternate Delegates within two weeks to formulate a distinct and concrete proposal in accordance with the Council's supplementary report and approval by the House of Delegates. The proposal should then be presented to the AMA Committee on Health Care Financing of the Board of Trustees for their consideration with the request that the Board of Trustees of the AMA present the proposal to the AMA House of Delegates in June.

■ The Council next discussed the letter of March 29, 1968 received by physicians throughout the state from H. O. Loyd, M.D., the Medical Director of the Division of Welfare, regarding reduction in payment to doctors for injectable medication. On motion of Doctor Benoit, duly seconded, it was agreed that the Executive Committee of the Council; Dr. Herbert Wiegand, Chairman of the Medical Economics Committee; and Dr. Stanley Peterson arrange to meet with the Medical Director and the Director of the Division of Welfare in an effort to resolve this problem and, then, assist the Director in formulating a new letter to the physicians in Missouri which would rescind the original letter of March 29.—**Referred to Resolutions Committee.]**

Doctor Franklin, Treasurer, reported that certain bonds in the MSMA Investment Account would mature soon and requested the Council to appoint one or two additional members to help decide how to invest these monies and to instruct our Investment Agency. On Motion of Doctor Wray, duly seconded and approved, the following committee was appointed to assist the Treasurer and be empowered to act on the investments: Drs. Doyle C. McCraw, Bolivar; Gerald L. Miller, Kansas City; and Robert A. Mayer, Clayton.

■ The portion of the Medical Economics Contract Committee report made at the Council meeting held on March 3 and dealing with overutilization of physicians' services and payment for physicians' services for nursing home patients had been tabled at the Council meeting on March 27. Doctor Gunn moved that the portion of this report which had been tabled now be taken off the table. The motion was seconded and approved. Doctor Benoit then moved that this particular portion of the report be referred to the Sub-Committee of the Medical Economics Contract Committee, which was appointed to study physicians' services for nursing homes, for their study and further report to the Council. The motion was seconded and carried. Members of the Nursing Home Sub-Committee appointed by the Chairman of the Medical Economics Contract Committee are Drs. Rae Froelich, Lebanon; James N. Haddock, St. Louis; and Charles L. Miller, Jr., Kirkwood.—**Referred to Resolutions Committee.]**

The Council decided upon May 11 and 12, 1968 as their next meeting dates, location for this meeting to be determined at a later date.

Meeting of May 11-12, 1968

Joseph L. Fisher, M.D., St. Joseph, Chairman, called the meeting to order. Those present were Drs. Fisher, Lysle M. Bach, Hannibal; Walter T. Gunn, St. Louis; Robert A. Mayer, Clayton; James C. Cope, Columbia; Rolla B. Wray, Nevada; Gerald L. Miller, Kansas City; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; David N. Kerr, Clayton; Doyle C. McCraw, Bolivar; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; Hector W. Benoit, Jr., Kansas City; Stanley S. Peterson, Springfield; J. Loren Washburn, Versailles; Arthur W. Neilson, St. Louis; William D. Mayer, Columbia; John A. Buesseller, Columbia. Messrs. John W. Noble, Kennett; Gordon Weiss, Jefferson City; Gary Schnedler, Springfield; Allen D. Smith, Kansas City; Edgar Mothershead, St. Louis County; Hollister Smith, T. R. O'Brien, Lemoine Skinner, St. Louis; Tom P. Fox, Don Brummall, Bob Carroll and Ray McIntyre, Jefferson City. (Sunday) Drs. Vernon E. Wilson, Columbia; Jack Sanders, Jefferson City.

Dr. Fisher opened the meeting and welcomed Dr. Howard McAlhany of Springfield, the new Councilor from the 8th District.

Dr. Fisher called attention to the Council minutes of March 27 and March 30, 1968 and requested approval. Attention was called to a slight error in the minutes of March 27, page 4, paragraph 5, line 3, which was corrected by changing the word "enjoined" to "joined." On motion of Dr. Wray, duly seconded, the minutes of the March 27 meeting were approved as corrected, and the minutes of the March 30 meeting approved as written. The minutes of the Council meeting of March 31, 1968, were also approved as written.

Dr. Fisher called attention to a request from Dr. Kenneth Glover, Mt. Vernon, to be relieved of the Chairmanship of the Committee on Medicine and Religion. Dr. Glover stated that he would be willing to continue as a member of the Committee. It was pointed out that this is a Special Committee of the Council. On motion of Dr. Wray, duly seconded, the following members were appointed to the Committee on Medicine and Religion for a term of one year: Drs. Troy O. Morgan, Jr., Albany, Chairman; Kenneth Glover, Mt. Vernon; Robert M. Meyers, Kansas City; Paul R. Whitener, St. Louis County; Douglas A. Ries, St. Louis; and Morris Alex, St. Louis.

Dr. Fisher presented a letter from Mrs. E. F. Butler, St. Joseph, President of the Woman's Auxiliary, requesting that Dr. Walter T. Gunn, St. Louis, be appointed to serve on the Auxiliary Advisory Council with Drs. Benoit and Fisher. On motion of Dr. Franklin, duly seconded, the Council approved the appointment of Dr.

Gunn to the Advisory Council of the Woman's Auxiliary.

Mr. McIntyre introduced Mr. Bob Carroll, the new employe of the State Medical Association Headquarters Office, who will take over his duties on May 15, 1968.

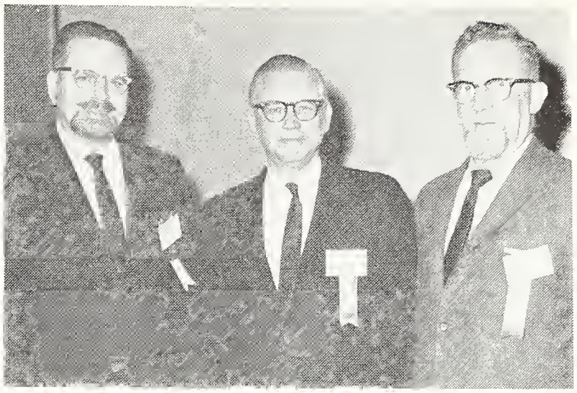
Mr. McIntyre read a letter of appreciation from the Student AMA for the donation of $100 for sustaining membership in that organization for 1968. He also called attention to a request from the Missouri University Chapter of SAMA seeking assistance in defraying the expenses of sending a delegate and alternate delegate to the national SAMA meeting. He explained this had been done for a number of years. On motion of Dr. Kerr, duly seconded, a donation was approved.

■ Mr. O'Brien reported that as of Jan. 1, 1968, the State Association no longer has a contract with the Government regarding the Dependents' Medical Care program which is now known as the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). CHAMPUS now has the contract only with the carrier, Blue Shield of St. Louis. He stated that physician payments were based on the usual, customary and reasonable basis. He mentioned that the program has almost doubled that of last year and that, as of April 30, 1967, 2,294 cases were processed through the Blue Shield office and approximately $185,000 had been paid. This year (1968) so far, 4,968 cases were processed with payments amounting to $376,000 which is approximately double, not only in number of cases, but, also, in money being paid. He stated that this was due to the increased number of active duty personnel and also, Retired Personnel using the program.

Mr. O'Brien also reported that he had met with a representative of the Eggert-Carroll-Schroeder Agency of St. Louis, who with the Altman-Singleton Company of Kansas City, handles the Major Hospital Group Insurance and Nurse Expense Program for Missouri State Medical Association. He explained that the Commercial Insurance Company of Newark, N. J., the carrier for the group contracts (one for disability for physicians in effect since about 1942 and the other one for major hospital and nurse expense since about 1960) had studied the experiences, not only for the medical group, but also for the dental group, engineers, and others and has decided changes would have to be made because of the increased cost, particularly in hospitalization. It was reported that several changes are contemplated in this program, one being that since Medicare became effective, the upper age limit should be lowered from 70 to 65, when Medicare would take over. He stated the Company would prepare a summary of total premiums and total expenses since the latter MSMA program started and will present the entire state picture and what it will mean to the members. However, it was noted, changes would not be made in the program before next spring.—**Referred to Resolutions Committee.]**

Mr. McIntyre reported that it has been the custom in the past for MSMA to present an Honors Graduate Award and a $100 U. S. Savings Bond to the outstanding medical graduate from each of the three medical schools in Missouri. He mentioned that two of the names had been submitted, one from St. Louis University and one from the University of Missouri. He said, however, that we are still waiting for the name from Washington University. Bonds and the Awards will be furnished to the Deans of the Medical Schools for this presentation at the appropriate time.

Dr. Franklin presented a Financial Report and stated that most of the members have paid their 1968 dues. He mentioned that suggested investments for the regular investment account had been received from the Trust Agency and requested members of the Finance Committee to meet with him later in the day to help make a decision on these suggestions. On motion of Dr. Kerr, duly seconded, the Treasurer's Report was accepted.



Councilors Lysle M. Bach, Robert A. Mayer and James C. Cope enjoy visiting after a meeting of the House of Delegates.

■ Dr. Fisher read a newspaper article which stated that a $44,000 Federal Grant had been approved for the University of Missouri Medical School for ambulance personnel training and study of emergency services. It was pointed out that the article was misleading and that many physicians over the state might get the wrong impression regarding admission policies at the Medical Center. It also was noted that many mortuaries have discontinued emergency ambulance service in rural areas because of the strict requirements of the new Highway Safety Act. Dr. Cope reported that Boone County Hospital had taken over the ambulance service in the Columbia area and that the service also was being subsidized by the Boone County Court. Dean William Mayer stated that the University of Missouri had been asked to help cover some of this expense and had stated the University would be glad to provide assistance. He also mentioned that there would be no change in the present ambulance set-up because of the training program and that patients would continue to be taken to the hospital of their choice or, in cases of emergency, to the closest available hospital.

A letter of explanation was sent to the MSMA office from the University of Missouri Medical Center which clarified the misstatements in the newspaper article. It also explained a letter had been sent to the writer of the article as well.

Dr. Kerr reported that the Executive Committee of MSMA met with representatives of the Missouri Division of Welfare on April 3, 1968, in Jefferson City to discuss the letter under date of March 29, 1968 from H. O. Loyd, M.D., Medical Director and J. Paul Leslie, Sr., M.D., Medical Consultant, Missouri Division of Welfare on the subject of injectable medications in the Medicaid program. The letter was sent to all Missouri physicians participating in the Title XIX program. Dr. Kerr stated that the letter had caused consderable concern on the part of members over the state and that the House of Delegates of MSMA had directed the Council to attempt to have the Division of Welfare rescind it. Mr. Carter emphasized his desire for continued cooperation between the Division of Welfare and the MSMA in ironing out problems pertaining to the Medicaid program. After extensve discussion, it was agreed by Mr. Carter and Drs. Loyd and Leslie that their letter of March 29 would be rescinded and a new memorandum covering the same subject would be sent to physicians participating in the program. A letter to this effect was sent out on April 8, 1968 to all physicians participating in the Title XIX program.

After further discussion, the following resolution was presented by Dr. Cope:

Whereas, A recent memorandum of the Department of Welfare represented an attempt to control medical practice by pricing, and

Whereas, It required prompt action by Committees of the MSMA to have this memorandum rescinded, and

Whereas, There is no assurance that such an attempt will not be made again, be it therefore

Resolved, That the individuals who caused the memorandum to be rescinded be commended and, be it further

Resolved, That any future attempt of any agency to control medical practice through pricing be immediately resisted by every modality the MSMA can command.

After further discussion, on motion of Dr. Benoit, duly seconded, the above resolution was approved.—**Referred to Resolutions Committee.]**

■ Mr. Gordon Weiss, former Director of Comprehensive Health Planning, Department of Community Affairs for Missouri, presented interesting and informative material regarding P.L. 89-749. He stated that S.B. 14 was passed to implement the program in Missouri. Under Section A of the law, Missouri was allotted $141,000 for the first year of planning. He stated that Section B was for monies to be allotted for area-wide for local planning; Section C was for monies allotted for demonstration and training grants primarily for health planners; Section D allowed Health Department and the Mental Health authorities to extend their planning facilities and would provide money for planning and for carrying out their ongoing programs; and Section E was for monies provided to expand ongoing health programs on a local basis.

Mr. Weiss mentioned that in order to qualify under Section A, the State had to provide a planning program which was approved in the late 1967 by the U. S. Public Health Service. The Comprehensive Health Planning program, as planned for Missouri, takes in the total well-being of man and does not center around just the presence or absence of disease and infirmity. It also includes health manpower, resources and services. He said that the state plan would promote studies to determine needs. He added that the State did not wish to interfere in organized medical programs or programs of service organizations and would not be involved with facilities and services. He stated that on Nov. 24, 1967, the Missouri program was funded ($141,000) and an Advisory Council of 27 people appointed. The law requires that a majority of the Advisory Council membership shall consist of representatives of consumers of Health Services. He stated that there are six physicians on the Advisory Council, none of whom are practicing physicians. It was pointed out that MSMA should be represented on this Council and that names of a number of practicing physicians had been requested by Mr. Weiss for submission to the Governor for his consideration for appointment to the Advisory Council.

It was stated that, under Section B grants, a request has been received from St. Louis and Kansas City will apply soon. Physicians also need to be active in these local planning groups in order to direct their activites and the expenditure of funds which are granted for local area programs.

Dr. Fisher thanked Mr. Weiss for coming and for explaining this program so thoroughly.

After discussion, the following names were presented by Dr. Kerr to be submitted to the Governor for possible appointment of one or two on the Advisory Council: Drs. C. Read Boles, Clayton; Harold L. Gainey, Kansas City; Robert W. Kelley, St. Louis; F. Thomas Moseley, Springfield and Thompson E. Potter, St. Joseph. These names to be forwarded to the Governor immediately.—**Referred to Constitution and By-Laws Committee.]**

Dr. Kerr called attention to the Resolution from the 1968 House of Delegates regarding Missouri Medical Service and requested that Councilors from the various districts covered by St. Louis Blue Shield submit names to him for the MSMA Liaison Committee with Blue Shield to discuss changes in the method of nominating and electing members on the Voting Board and Board of Trustees of Blue Shield. These names are to be submitted on Sunday morning.

Dr. Kerr appointed the following physicians as members of the Committee on Environmental Health, which was newly-established by the House of Delegates: Drs. A. W. Neilson, St. Louis, Chairman; E. A. Stricker, St. James; Paul T. Luckenbill, Plattsburg; Horace A. Lowe, Jr., Springfield; Lloyd A. Hollinger, Kansas City.

On motion of Dr. Benoit, seconded by Dr. Gunn, the above committee was approved.

Dr. Kerr pointed out that the Public Service Committee was not announced at the Annual Session, but that the Committee would be composed of the following members: Drs. Gerald L. Miller, Kansas City, Chairman; David N. Kerr, Clayton; Doyle C. McCraw, Bolivar; Armand Brodeur, St. Louis, and Kenneth Glover, Mount Vernon.

On motion of Dr. Gunn, duly seconded, the above Committee on Public Service was approved.

A number of resolutions adopted by the 1968 House of Delegates were referred to the Council for discussion and recommendations as follows:

■ *1. Resolution re: State Medical Examiner Law.* Discussion followed regarding the proper time to notify the Governor and Legislators of the MSMA position favoring such a law in Missouri, who should have the bill introduced and what steps should be taken to secure support for the proposed law.

After discussion, on motion of Dr. Benoit, duly seconded, it was agreed that this particular resolution from the House of Delegates be referred to the Legislative Committee for implementation.

2. Resolution re: Increasing the Number of Qualified Physicians in Missouri. This resolution urges the Missouri Legislature to supply the necessary facilities to the citizenry of the state to allow for an increase in the number of medical graduates in the state. Discussion followed regarding the best way to handle this resolution. On motion of Dr. Miller, duly seconded, it was agreed that this resolution be implemented as stated and, further, that it be referred to the Committee on Medical

Education and Hospitals for additional study and recommendations.

3. Resolution re: Establishing Medical School and Facility in Kansas City, Missouri. It was pointed out that the Missouri Commission on Higher Education had not as yet made any recommendations based on the Olson report on the survey of physician manpower in Missouri. After discussion, on motion of Dr. Benoit, duly seconded, it was agreed that this resolution be referred to the Committee on Medical Education and Hospitals and that the last *Resolve* of the resolution be implemented by the staff.

After further discussion, on motion of Dr. Cope, duly seconded, it was agreed that a covering letter should accompany the resolutions to be sent to the Governor and the Legislators.—**Referred to Miscellaneous Affairs Committee.]**

4. Resolution re: County Medical Society Officers' Conference. After review and discussion, on motion of Dr. Benoit, duly seconded, it was agreed to refer this resolution to the Committee on Public Service for implementation.

5. Resolution re: State Board of Registration for the Healing Arts Investigation. After considerable discussion and review, on motion of Dr. Gunn, duly seconded, it was agreed that a copy of this resolution be sent to the State Board of Registration for the Healing Arts.

6. Resolution re: Group Practice. After reviewing this resolution, it was reported that Dr. Neilson would present it to the AMA as directed. The question arose regarding when it should be sent to the State Legislature. After further discussion, on motion of Dr. Wray, duly seconded, it was agreed that this resolution be held until after the annual session of the AMA and that the MSMA then follow the advice of our AMA Delegates regarding the distribution to the Legislature.

■ *7. Resolution re: Human Blood as a Service and Not a Sale.* Discussion followed regarding the implementation of this resolution. It was suggested that it be referred to the Laboratory Medicine Committee for study and suggestions, with their suggestions to be forwarded to the Legislative Committee so that they can provide the Council with a full report at its next meeting.

8. Resolution re: Post Doctoral Training of Osteopathic Graduates. A copy of the resolution was sent to the Missouri Osteopathic Association requesting a liaison committee of that Association with MSMA. The purpose of the joint liaison committee, as expressed in the resolution, is to explore the possibility of extending postdoctoral training of interns and residents in medical hospitals in the State of Missouri to qualified osteopathic graduates licensed by the State of Missouri. A reply was received stating that this request will be presented to the House of Delegates of the Missouri Association of Osteopathic Physicians and Surgeons at their forthcoming meeting in June. After further discussion, on motion of Dr. Benoit, it was agreed that this resolution be referred to the MSMA Committee on Medical Education and Hospitals with instructions to confer with the AMA Council on Medical Education about this matter.—**Referred to Miscellaneous Affairs Committee.]**

■ *9. Resolution re: Total Health Care Costs of the Medicare and Medicaid Programs in Missouri.* Discussion followed regarding the feasibility of the staff preparing each year a breakdown of these expenditures from appropriate public records, with source notations, and publicizing same on a wide basis. On motion of Dr. Gunn, duly seconded, it was agreed that the staff be directed to study the feasibility of this resolution and report back to the Council at its next meeting.

Discussion then followed regarding the final *Resolve* which directs that the AMA Board of Trustees and the AMA House of Delegates be made aware of this action by the MSMA House of Delegates and that they be requested to consider similar action and public information programs at the national level.

On motion of Dr. Kerr, duly seconded, it was agreed that a copy of this resolution be sent to Dr. Blasingame with a covering letter before the next meeting of the AMA House of Delegates.—**Referred to Resolutions Committee.]**

■ *10-a. Resolution re: Comprehensive Health Planning.* This resolution urges the Governor to call on health professionals for assistance in implementing P.L. 89-749 in Missouri. The Council reviewed this resolution and on motion, duly seconded, it was agreed that a copy be sent to Governor Hearnes and a copy be sent to each County Medical Society Secretary for consideration.

10-b. Resolution re: Establishing Permanent Committees on Comprehensive Health Planning. After discussion, on motion, duly seconded, it was agreed that this resolution be referred to the Committee on Constitution and By-Laws for proper implementation; that the President be directed at this time to appoint an Ad Hoc Committee to study this problem during the next year; and that a copy of this resolution be sent to each County Society for implementation on the local level.

10-c. Resolution re: Comprehensive Health Planning Program in Missouri Unacceptable. After discussion, on motion of Dr. Gunn, it was agreed that this resolution be tabled in view of developments since the meeting of the House of Delegates which have changed the situation which existed at the time of the session of the House.—**Referred to Constitution and By-Laws Committee.]**

Dr. Buesseler, Chairman of the Ad Hoc Committee to Study the Cost of Medical Care in Missouri, reviewed the minutes of the meeting of his committee held in St. Louis on April 17, 1968, with the MSMA Delegates and Alternates to the AMA. He explained that the purpose of the meeting was to determine the most practical, effective way to approach the AMA to secure their cooperation and assistance in implementing and funding an in-depth study of health care costs in Missouri in compliance with the action of the MSMA Council and House of Delegates.

Dr. Buesseler reported that the AMA Ad Hoc Committee on Health Care Financing would meet in Chicago on April 27, 1968, at which time the Missouri Delegation could present its proposed study. He stated that a package of three items of information would be prepared for distribution to the AMA Staff and members of the AMA Committee on Health Care Financing. Following the meeting with the AMA Committee on April 27, the MSMA Delegation will request, if it seems appropriate, a hearing before the AMA Board of Trustees through Dr. Blasingame.

Dr. Buesseler then reported on the meeting of the MSMA Delegation with the AMA Ad Hoc Committee on Health Care Financing, April 27, 1968. He stated that Dr. Neilson presented the problem to the AMA and spoke of the national concern over increasing health care costs and the necessity for organized medicine to concern itself with the problem.

Dr. Benoit informed the AMA Committee of the evolution of the MSMA proposal as the direct development of the Association's concern over the criticism directed at physicians from many public and private sources because of the general rise in health care costs.

Dr. Buesseler discussed the specific proposal for such a study and Professor Goode presented the proposed methodology for the study in response to questioning by the AMA Committee, AMA Staff and others present at the meeting. Dr. Blasingame suggested that the next step would be a meeting of the MSMA delegation with the AMA staff to further evaluate the study proposal prior to a determination of its feasibility and its desirability for funding under AMA sponsorship. Plans to meet with the AMA staff were changed and Dr. Neilson reported tenative arrangements to meet with another committee of the AMA, composed of members of the Board of Trustees, on May 16, 1968 in Chicago to explain the MSMA position and its request. Dr. Neilson requested approval of the Council to take the same delegation and President Kerr to the meeting in Chicago on May 16. The Council approved this request.

On motion of Dr. Wray, duly seconded, the reports of the MSMA Ad Hoc Committee to Study Health Care Costs in Missouri were approved.

Dr. Neilson reported on two resolutions to be presented to the AMA House of Delegates in June: (1) A resolution complimenting the AMA on the Second National Congress on Socio-Economics of Health Care; and (2) a resolution against any federal compulsory and coercive promotion of group and hospital practice of medicine. Both of these resolutions were reviewed. On motion of Dr. Robert Mayer, duly seconded, the resolutions were approved for presentation to the AMA House of Delegates.

On motion, duly seconded, the AMA Delegate's report was approved.

■ The resolution regarding appointment of a committee of physicians from component medical societies of the area served by St. Louis Blue Shield to work with a committee from St. Louis Blue Shield to effect changes in the By-laws of Blue Shield relating to the nomination and election of the physician members of the Voting Board and Board of Trustees of St. Louis Blue Shield was brought up on Sunday. The following physicians were appointed by the President: Drs. Robert W. Kelley, St. Louis, Chairman; Milton T. English, Kirksville; Hubert A. Ritter, St. Louis; Charles Gulick, St. Louis; George A. Richardson, Union; Charles J. Miller, Clayton; Roland P. Ladenson, Columbia; Horace E. Thomas, Columbia; MacDonald Bonebrake, Springfield; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; and Harold Rapp, Cape Girardeau.—**Referred to Resolutions Committee.]**

■ Dr. Kerr appointed the following members to the Legislative Committee: Drs. John I. Matthews, Chairman; David N. Kerr, St. Louis; Doyle C. McCraw, Bolivar; Joseph L. Fisher, St. Joseph; Gerald L. Miller, Kansas City. Associate Members: Drs. Stanley S. Peterson, Springfield; J. Loren Washburn, Versailles; Arthur W. Neilson, St. Louis; Hector W. Benoit, Jr., Kansas City.—**Referred to Miscellaneous Affairs Committee.]**

■ Further discussion was held on the appointment of a MSMA Comprehensive Health Planning Committee. It was suggested that the physician selected by the Governor to serve on the State Advisory Committee on Comprehensive Health Planning also serve as Chairman of the MSMA Committee on Comprehensive Health Planning. It was further suggested that the five physicians whose names were to be submitted to the Governor would compose the MSMA Committee. On motion, duly seconded, this was approved.—**Referred to Constitution and By-Laws Committee.]**

Mr. McIntyre requested clarification of the appropriate time for resolutions discussed on Saturday are to be sent to the Legislators in view of the upcoming elections and the changes which might occur. On motion of Dr. Gunn, duly seconded, it was agreed that these items should be mailed after the November elections. All members of the 1969 Missouri Legislature would then receive them.

■ Dr. McCraw called attention to the luncheon for Senior and Junior Students of the University of Mis-

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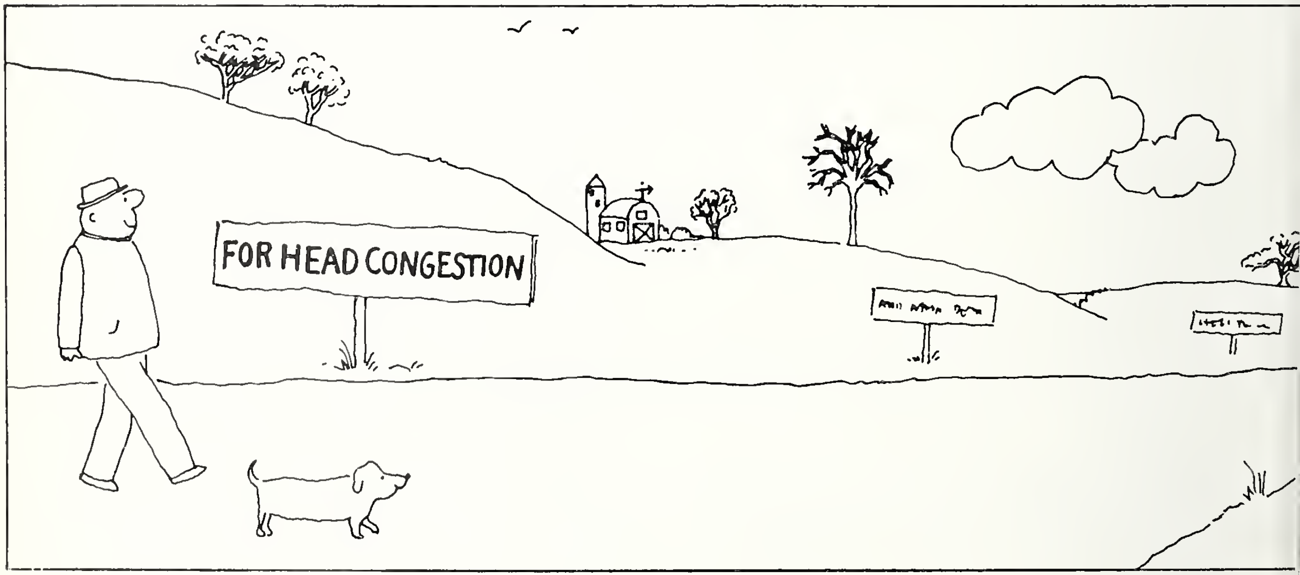

souri Medical School, in conjunction with Preceptor Day, which is scheduled for June 12, 1968 in the Student Union Building, Columbia. He mentioned that it has been the policy of the Missouri Academy of General Practice and Missouri State Medical Association to co-sponsor this event and share the expense. He expressed the hope the Council would approve continuing this practice.

After discussion, on motion of Dr. Gunn, duly seconded, it was agreed to continue our support of this program and to underwrite financially our part of the expense.

Discussion followed regarding continuation of the contacts made at affairs such as the above mentioned luncheon in order to recruit young physicians to practice in Missouri. It was stated that it was not enough just to contact them once a year, but that ways and means should be worked out to remain in contact with these trainees, to increase the applicants for medical schools, to increase the opportunities for medical education in Missouri and to recruit for practice in Missouri not only the students from Missouri but also those from other states.

After further discussion, on motion of Dr. Miller, duly seconded, it was agreed that these problems be studied by the Medical Education and Hospital Committee and that the Rural Medical Service Committee also should be delegated to study this matter and make recommendations to the Council regarding what can be done. **—Referred to Miscellaneous Affairs Committee.]**

■ Discussion followed regarding setting up a Planning Committee to consider goals and future activities of the Association. A number of ideas and suggestions were forthcoming. Mr. Skinner, Public Relations Consultant, spoke extensively to this subject. Dr. Matthews suggested that an agenda be prepared by the staff, the Chairman and Vice-Chairman of the Council, the Immediate Past-President, the President and President-Elect to encompass areas regarding the goals and activities (present and future) and the structure and economics of the Association, the agenda to be set up by specific items for consideration as follows: (a) A one-day meeting of the Council be held to discuss this particular agenda only; (b) A one-day meeting of the Medical Economics Contract Committee be held to discuss this same agenda; (c) Another group composed of younger men from 35 to 40 years of age and possibly one from each district over the state and who are constructively interested in organized medicine, be appointed and requested to consider this same agenda; and (d) Possibly the presidents of all county medical societies be requested to meet and study the same agenda.

After further discussion, on motion of Dr. Gunn, duly seconded, it was agreed that the above mentioned committee formulate the agenda for a special meeting of the Council and that the Council decide on other physician groups to be requested to meet and consider the same agenda.**—Referred to Constitution and By-Laws Committee.]**

■ Dr. Jack Sanders reviewed the report of the Committee on Study of Cardiac Disease for Dr. James Janney, Chairman, who could not attend. He called attention to the proposed amendments to the MSMA Resolution on Cardiac Resuscitation which was approved by the House of Delegates, April 7, 1967. He stated that the resolution directed that copies be sent to the Missouri Nursing Association and Missouri Hospital Association suggesting an ultimate joint statement of the three associations. After review, the nursing profession requested a statement on legal liability of the nurse in this program from the Attorney General of Missouri. The Attorney General's letter of April 18, 1968, stated the reasons for the following proposed changes in the resolution:

"Under certain circumstances, situations may arise in the hospital routine in which registered nurses and other personally selected and trained personnel may be called upon to administer the cardiac resuscitation techniques which are the subject of this resolution. We are limiting our consideration to situations in which there is no doctor present nor has the person in need of such resuscitation been under a doctor's care, nor has the doctor left standing orders. It is at this point where the diagnosis as to use and the administration of these

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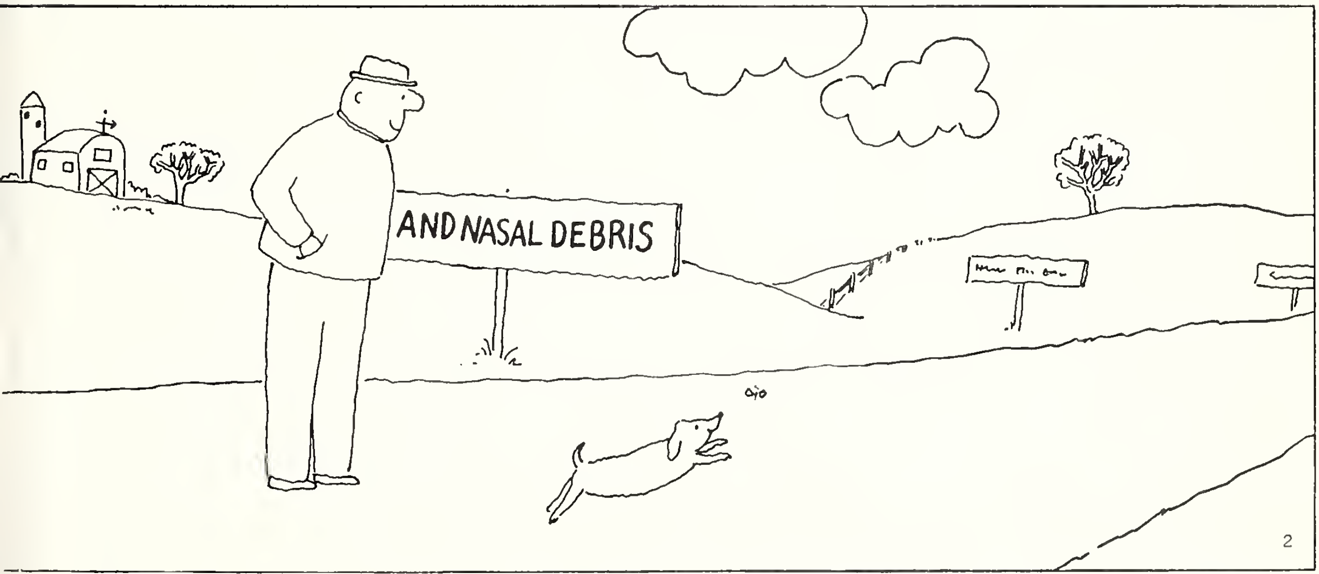

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techniques may be termed the practice of medicine.

"We believe that if the boards and associations adopting the resolution feel that these situations mentioned above could be classified as an *'emergency,'* then the administration of the cardiac resuscitation techniques may not fall within the prohibitive area of practicing medicine without a license."

Dr. Sanders reported that the Committee was polled by mail and unanimously approved the proposed amendments in line with the Attorney General's letter and asks approval of the MSMA Council. He stated the amendment added the words, "in emergency situations."

On motion of Dr. Kerr, duly seconded, the report of the Committee on Study of Cardiac Disease was accepted.

Dr. Cope reported that he had attended an all day forum in Columbia at which a discussion was held concerning how the $100,000 appropriated by the Missouri Legislature would be spent for chronic renal dialysis. He said that certain standards would have to be set up for a long range plan to handle the problem of chronic renal dialysis in Missouri.

Several other Councilors reported items of interest in their districts.

Dr. William Mayer, Dean of the University of Missouri School of Medicine, reported that he had attended a luncheon on Wednesday, May 8, 1968, given by the MSMA, at which checks were presented by Dr. Kerr, President of MSMA, to the Deans of the three medical schools in Missouri from the AMA-ERF fund. The combined contributions totaled more than $33,000. Dr. Mayer expressed appreciation for these contributions on behalf of the three medical schools.—**Referred to Medical Education Committee.]**

It was announced that the next meeting of the Council will be held in Springfield at the Howard Johnson Motel, on Sept. 7, 8, 1968.

Special Meeting—July 28, 1968

The Missouri State Medical Association Council held a special meeting on July 28, 1968 to consider progress to date and needed action on the proposal for the study of medical care costs in Missouri which was approved by the House of Delegates at the 1968 MSMA Annual Session.

Dr. Joseph L. Fisher, M.D., St. Joseph, chairman, called the meeting to order. Those present were Drs. Byron M. Stuart, Boonville; Walter B. Gunn, St. Louis; E. A. Stricker, St. James; David N. Kerr, St. Louis, MSMA President; John I. Matthews, Jefferson City; W. D. English, Cardwell; James C. Cope, Columbia; Rolla B. Wray, Nevada; Gerald L. Miller, Kansas City; Doyle C. McCraw, Bolivar, MSMA President-Elect; Howard J. McAlhany, Springfield; Hector W. Benoit, Jr., Kansas City; Lysle M. Bach, Hannibal; John A. Buesseler, Columbia; and Messrs. Allen D. Smith, Kansas City; Bob Carroll and Ray McIntyre, Jefferson City.

After opening the meeting, Dr. Fisher requested opinions in regard to (1) the recent proposal of the Research Center of the School of Business and Public Administration, University of Missouri-Columbia, which is now before the Missouri Regional Medical Program, asking for MRMP funding to carry out the study of health care costs in Missouri and (2) whether or not the proposed study with MRMP funding should have the support and cooperation of the Missouri State Medical Association.

Dr. Fisher reviewed the discussions of this proposal during a recent meeting of the Ad Hoc Committee at which Dr. Buesseler, chairman of the Ad Hoc Committee, reported the University of Missouri Research Center's interest in conducting the study using MRMP funds, if available.

Dr. Stuart reported and commented on the meeting of the MRMP Liaison Committee in Columbia at which the plan for the proposed study was considered. He said that he thought this proposal should be acted upon by the MSMA House of Delegates.

Dr. Buesseler discussed the entire proposal and said that the study is tailored for Missouri physicians. He added that other organizations that have shown a positive attitude toward the study are the Missouri Association of Osteopathic Physicians and Surgeons, Missouri Hospital Association and Missouri Pharmaceutical Association.

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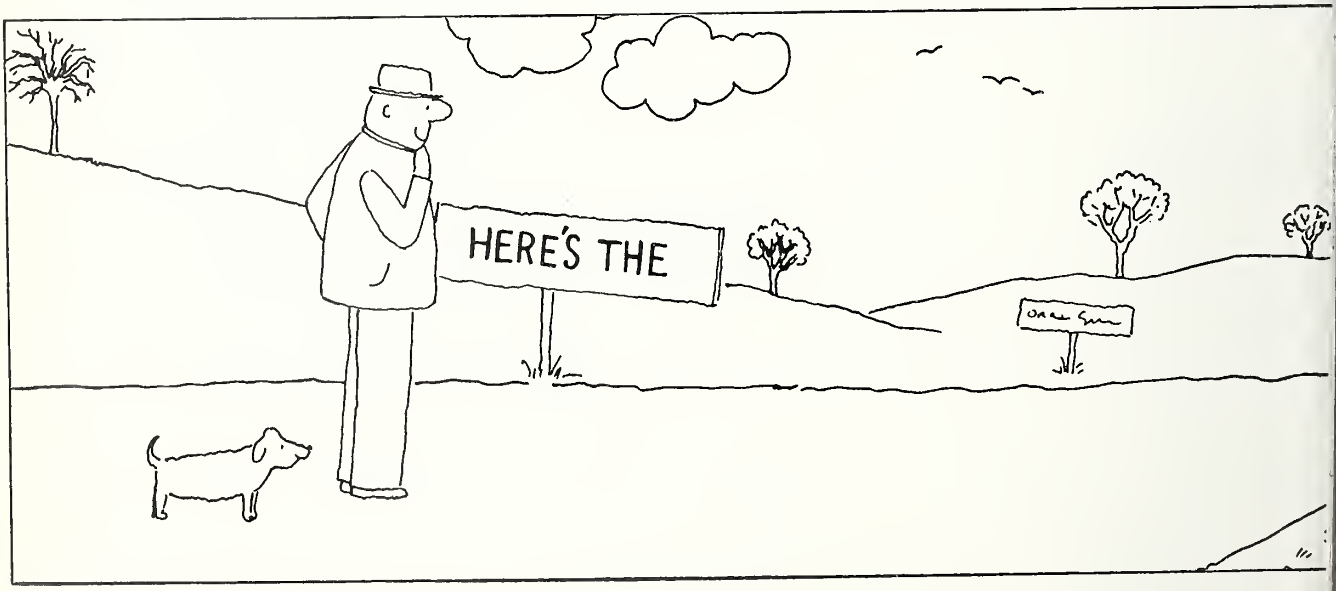

Dr. McCraw referred to an article in a recent edition of The Journal *of the American Medical Association* which replied to charges of high medical costs. Whether or not the article adequately answered those charges was the subject of considerable pro-and-con discussion.

All Council members at the meeting participated in a detailed discussion concerning major aspects of the proposed study, such as proper and available funding, sponsorship by MSMA or cooperation in sponsorship, implementation of the study, types of questions to be included in the study and the manner of dissemination of the results of the study. Dr. Buesseler stated that the MRMP would not consider financing the study if the MSMA Council disapproved.

After Dr. Kerr emphasized that funding the study was the principal problem, Dr. Benoit cited the urgent need for the study at this time and introduced the following motion in the form of a resolution:

> Whereas, the Missouri State Medical Association House of Delegates in 1968 evidenced its support and cooperation of a study of health care costs in Missouri, therefore be it
> *Resolved,* By the MSMA Council that it enthusiastically supports the current project proposal submitted to the Missouri Regional Medical Program by the Research Center, School of Business and Public Administration of the University of Missouri, to investigate and analyze the cost of health care services in Missouri and will pledge its cooperation in conducting the study.

The motion was seconded and approved by a vote of 7 to 4.

The Council then directed the Executive Secretary of MSMA to send a letter which will state the action of the Council evidencing its support of and cooperation in the study to Dr. Buesseler for presentation to the MRMP Liaison Committee and MRMP Advisory Council.

The Council then adjourned.

(The MRMP Advisory Council at its August meeting disapproved the request of the Research Center of the School of Business and Public Administration, University of Missouri, for MRMP funding to carry out the proposed study of health care costs in Missouri.)

Special Meeting—Sept. 6, 1968

■ Joseph L. Fisher, M.D., St. Joseph, Chairman, called the meeting to order. The following persons were present: Drs. Fisher; Walter T. Gunn, St. Louis; James C. Cope, Columbia; Rolla B. Wray, Nevada; Gerald L. Miller, Kansas City; Howard J. McAlhany, Springfield, E. A. Stricker, St. James; W. D. English, Cardwell; David N. Kerr, St. Louis; Doyle C. McCraw, Bolivar; Max S. Franklin, St. Louis; John I. Matthews, Jefferson City; Hector W. Benoit, Kansas City; Stanley S. Peterson, Springfield; J. Loren Washburn, Versailles; Arthur W. Neilson, St. Louis; William D. Mayer, Columbia; Kenneth C. Hollweg, Kansas City; William C. Allen, Columbia; Messrs. John W. Noble, Kennett; Arthur W. Seeds, Chicago; Hollister S. Smith, St. Louis; Gary L. Schnedler, Springfield; Allen D. Smith, Kansas City; T. R. O'Brien, and Lemoine Skinner, Jr., St. Louis; Tom P. Fox, Don Brummall, Bob Carroll and Ray McIntyre, Jefferson City.

The Chairman called the meeting to order to discuss the Long Range Planning Agenda which was formulated by the Planning Committee of the Council at a special meeting held on May 26, 1968. The minutes of the Committee meeting are as follows:

> David N. Kerr, M.D., St. Louis, called the meeting to order. Those present were Drs. Kerr; Hector Benoit, Jr., Kansas City; Doyle C. McCraw, Bolivar; Joseph L. Fisher, St. Joseph; Gerald L. Miller, Kansas City. Staff: Lemoine Skinner, St. Louis; Ray McIntyre, Don Brummall, Tom Fox and Bob Carroll, Jefferson City.
>
> The meeting was held for the purpose of preparing a planning agenda concerning future activities and direction of the Missouri State Medical Association for presentation to the Council. Forthright discussion was held concerning problems and challenges facing the Missouri State Medical Association and the entire medical profession. After the discussion, an agenda was prepared and it will be presented to the Council at a special meeting to be held on Sept. 6, 1968 at the Howard Johnson Motel in Springfield before the regular meeting of the Council on Sept. 7, 8, 1968. Copies of the following agenda and a cover letter are to be sent to all members of the Council as well as to the Chairman of the Constitution and By-Laws Commit-

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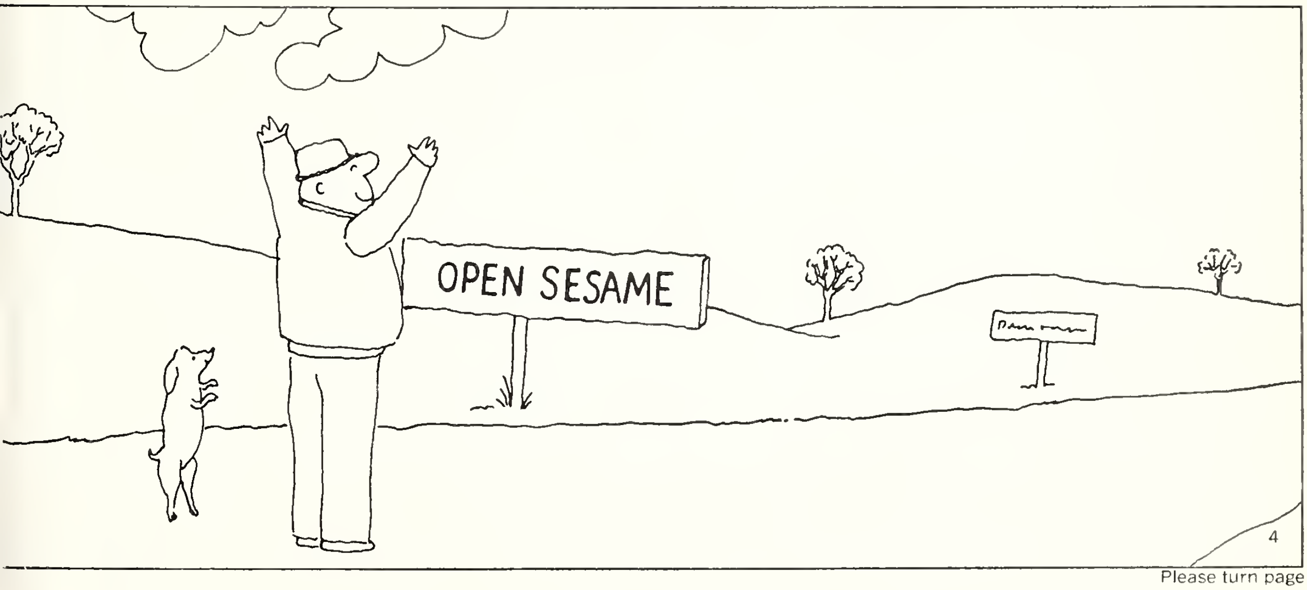

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tee for study between now and the September 6 special meeting.

Proposed Agenda

- I. Health care costs and financing
  - A. Doctors costs and charges
  - B. Health care facilities: Costs, charges, utilization
  - C. Drugs—costs and charges
  - D. Third party carriers
    - 1. Blues
    - 2. Private
    - 3. Governmental
- II. Physician Relations
  - A. Discipline
  - B. Quality Control
  - C. Delivery of Service
  - D. Service of organized medicine to members
  - E. Continuing medical education programs
  - F. Hospital Management—physician relationships
- III. Health Manpower—Physician and Paramedical
  - A. Undergraduate recruitment
  - B. Expansion of Health Education Facilities
  - C. Retention and Distribution in Missouri
  - D. Utilization of available health care facilities and personnel
    - 1. Emergency medical care
    - 2. 40-Hour week's effects
- IV. Public Relations
  - A. Educating the public concerning health
  - B. Liaison with voluntary and governmental health agencies
  - C. Use of communications media
  - D. Service programs—state and local
  - E. Liaison with other professional and consumer groups
- V. Relations with government
  - A. Legislative
  - B. Role of organized medicine in governmental health planning—Administrative
    - 1. Regional Medical Program
    - 2. Office of Economic Opportunity
    - 3. Medicare and Medicaid
    - 4. Comprehensive Health Planning
  - C. Review of Missouri's Medical Practice Act
- VI. Review of entire structure of MSMA
  - A. Council, House of Delegates, Committees
  - B. Staff
  - C. Budget

After the above minutes were read, Dr. Fisher called upon President Kerr to preside and open the discussion. Dr. Kerr explained that the Agenda consisted of six main items with a number of subheadings. He noted that all of the problems could not be solved now, but the purpose of the idea of long range planning is to consider these problems and make suggestions that can be taken under consideration for the future. He stated that MSMA's biggest problems at the present time are in relation to health legislation and programs, what can be done to interest more Missouri students in entering medical schools and how to get them to remain in the state of Missouri to practice.

Mr. McIntyre stated that one item of immediate importance is under Item V-C—Review of Missouri's Medical Practice Act. He stated that one pertinent factor from the long range standpoint is working together with the Missouri Osteopathic Association on mutual problems. Mr. McIntyre stated that a resolution which was passed at the 1968 MSMA Annual Session proposed a liaison committee with the Missouri Osteopathic Association to study the possibilities of osteopathic residents and interns being admitted to medical hospitals in the State of Missouri for training. He said that the Osteopathic Association is considering this resolution and also has proposed additional items for joint discussion. One item embraces the subject of President Johnson's Manpower Commission Report, one section of which concerns the possibility of requiring doctors to participate in continuing medical education courses and training programs or requiring periodic examination for recertification of their licenses.

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Mr. McIntyre also mentioned that chiropractic legislation probably will be introduced again in the 1969 Missouri Legislative Session. He stated that it also is possible that numerous paramedical groups will seek licensure and, while this concerns state legislation, there also will be Federal legislation to consider.

Dr. Kerr stated that MSMA needs to work with the Osteopathic Association to develop programs to help solve our rural medical problems and to promote the "umbrella plan" under the State Board of Registration for the Healing Arts for licensure of paramedical groups. He then asked for suggestions from the Councilors and AMA Delegates regarding the items contained in the Long Range Planning Agenda.

Dr. Gunn reported on how the Missouri Academy of General Practice operates regarding required postgraduate study credits over a three year period in order to retain a membership and suggested that this plan might be considered for other medical organizations.

Dr. Miller stated that action of the Council in May directed the Long Range Planning Committee to meet prior to this meeting of the Council to make recommendations for presentation to the Council. He said that additions and deletions then could be made and Council action taken toward implementation of any long range program as approved.

Dr. Kerr stated that the Council needs to formulate a plan for considering the proposals of the Long Range Planning Committee, perhaps by utilizing new committees or by referring specific items to existing MSMA committees.

Dr. Neilson said that this is a good program, but that some of the problems will be very difficult to solve, such as (1) the Public Relations Program (No. IV on agenda), which should be implemented in a better way than in the past, (2) Medical Manpower, which needs immediate attention and for which legislation probably will be needed immediately to produce more medical schools and (3) Postgraduate Training of Physicians. He cited the importance of interesting physicians in teaching programs in local hospitals and suggested the possibility of the State Association promoting more postgraduate programs. In regard to Health Care Costs under Item IV (Relations with Government), he said that the AMA will be active in this field and asked Mr. Seeds to comment. Mr. Seeds suggested that if the MSMA begins with problems of postgraduate education and public relations, the other items will fall in line.

Dr. McAlhany suggested the following three items which he thought were important: (1) Relationship with the government, (2) relationship with hospitals and (3) relationship with the public. He suggested that MSMA work with government on health programs. He also stated that hospitals are entering more and more into the practice of medicine and MSMA should develop a formula for working with the hospitals. He stated that some people feel that many doctors are too interested in making money and not interested enough in public welfare.

Dr. Kerr mentioned the need to promote greater interest on the part of medical societies and individual members in all of our problems. He said MSMA should interest the younger and newer members and encourage their active participation on committees. He stated that the Medical Economics Contract Committee is considering cost charges and working with third party carriers. In regard to Public Relations, he said that MSMA has a public relations committee, but needs new approaches in that regard. He said MSMA needs more new and younger men to be active in the medical organization's programs.

Dr. Benoit stated that the idea behind the plan is for the Council to start looking into some of the problems of the future and noted that the Council and Executive staff of the Association are now involved with current problems. He said there has been no basic long range thinking and there are various areas of activities which have been neglected and need attention, such as what the Medical Association can do for its members. He said that Item No. VI should become Item No. I and questioned whether or not the present staff, both in number and talent, can cope with these problems. He stated that basically what the Council is considering is an attempt to digest the situation and that, perhaps, some items should be implemented before others. He raised

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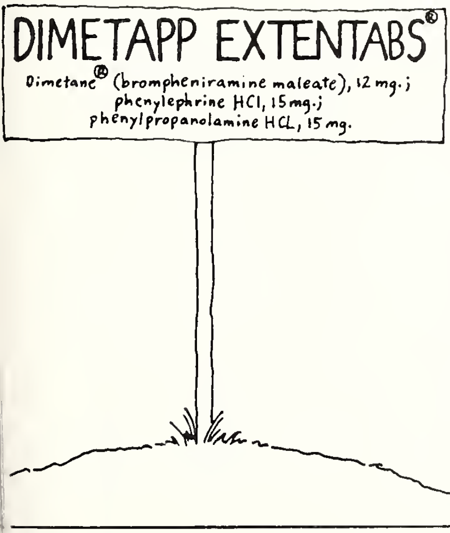
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Immediate Past-President David N. Kerr *(left)* accepts a plaque which expresses the Association's appreciation for his year of service as President. The presentation was made by newly-installed President Doyle C. McCraw (right) at the Presidents' Banquet.

the question of the best way for the Council to recommend to the House that it implement the most important items on the agenda immediately and suggested that subcommittees of regular committees might be helpful.

Dr. Fisher stated that detailed discussion at the meeting of May 26, unfortunately, could not be included in this report. He said MSMA needs an active committee to interest interns and residents in staying in Missouri and not leaving the state. He added that MSMA needs a concrete plan for implementing these many ideas of the Planning Committee.

Mr. Skinner stated that there is no way in which committees and individually-oriented physicians can implement a program. He said there is no big corporation in the world whose business is conducted by its stockholders. He said medicine is big business, and MSMA must take a completely new look at what this organization is supposed to do. He stated that it is his belief that it is time for MSMA to be less like a legislative body and become more like a corporation. He said the key is No. VI, what kind of structure and organization does MSMA need to represent the profession under present conditions and future indications and that this should be the first business to be considered under this planning committee's recommendations.

Dr. Miller stated that he interpreted the effort of the Planning Committee to be anticipatory. He said the comments from those present would suggest that the proposals contained in the agenda of six items of immediate and future concern to Missouri medicine should be accepted. Secondly, in the interest of expedience, he proposed that the six major items be assigned to appropriate existing committees and that a member of the Council be assigned to work with each committee. He suggested that we start with No. VI, attack this first and request all committees to bring back fruitful recommendations.

Dr. Cope said he agreed with Dr. Benoit. He stated that MSMA was organized as a scientific and educational organization to furnish scientific knowledge to the membership and promote lay health education. He pointed out that, for many years, this was all that was expected of the Association. He stated that a few years ago, we stood up for our own rights and what we thought was right, but that, as an organization, MSMA now needs to develop ways to get (1) prompt action, (2) more funds, which it does not now have and (3) discipline within the membership.

Dr. Peterson recommended that whenever we start to reorganize MSMA, we should look at what is right and not what is wrong with the organization. He stated that our Missouri organization is as good as any other in the nation, including the larger organizations. He said that he could see no need to change the organization and did not believe changing it *per se* will make any difference in what the doctors will do. He said that MSMA is a potent organization that helped to change the way the Welfare Department conducts its business and, if handled correctly, it can be as potent as it wants to be.

Dr. Peterson suggested that the Council assign this long range program to someone who can take the time to do it and, if necessary, hire persons from our organization and pay them and their expenses on a per diem basis to determine what is wrong and what is right. He said that members and nonmembers should be included. He added that this organization should start getting together with special groups of its members, the Missouri Society of Internal Medicine and all other so-called "splinter" groups and bring them back to where they belong. He said that changing our organizational format would not change anything.

Dr. English stated that MSMA members must work together and develop more cooperation in these important matters.

Dr. Neilson said he agreed with Dr. Benoit that we should start with No. VI. He suggested that the Council give the committee which was formed to do this task an opportunity to do its job. He said the Council should approve these recommendations and let the committee go a little further in its study and adopt those items which are useful and reject those not useful without a large expenditure. He said the job can be done by the physician-members of the committee and suggested that they start working on the subject of physician relationships within our own society and our public relations.

Dr. Benoit stated that he thought the word "change" had been misinterpreted. He said he did not think the structure should be changed, but that certain things should be handled differently. He said that the MSMA Constitution does not need to be changed and he did not agree that the suggestions from Dr. Miller be implemented. He suggested that the Council give the Planning Committee the authority to go ahead. Since No. VI needs immediate attention, he recommended that the Planning Committee should return to this specific project. He agreed with Dr. Peterson's statements.

Dr. Benoit added that he was opposed to the idea of the Association spending large amounts of money to pay experts to tell MSMA what is wrong with the organization. He suggested that the plan be sent back to the Planning Committee.

Dr. Matthews moved that the Council approve the report of the Planning Committee, commend the Committee members for their initial efforts and suggest that recommendations be brought back to the Council regarding how to proceed, what to approach first and ways and means for carrying these suggestions forward.

After discussion, duly seconded by Dr. Stricker, the motion carried.

Dr. Miller suggested that parts of this agenda may well be included on the agenda for the January Officers Conference. He also suggested that the Planning Committee have one or two meetings prior to the December meeting of the Council.

Dr. Hollweg, chairman of the Constitution and By-Laws Committee, was asked for his opinions. He stated that he could see no need for major change in the Constitution and By-Laws at the moment, that he thought we still have the knowledge within our own State Association to solve these problems and that the whole situation must be studied very carefully.—**Referred to Constitution and By-Laws Committee.]**

Meeting of Sept 7-8, 1968

Joseph L. Fisher, M.D., St. Joseph, Chairman, called the meeting to order. The following persons were present: Drs. Fisher; Lysle M. Bach, Hannibal; Walter T. Gunn, St. Louis; James C. Cope, Columbia; Rolla B. Wray, Nevada; Gerald L. Miller, Kansas City; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; W. D. English, Cardwell; David N. Kerr, St. Louis; Doyle C. McCraw, Bolivar; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; Hector W. Benoit, Kansas City; Stanley S. Peterson, Springfield; J. L. Washburn, Versailles; Arthur W. Neilson, St. Louis; Robert W. Kelley, St. Louis; William D. Mayer, Columbia; Vernon E. Wilson, Columbia; Paul Whitener, St. Louis; Kenneth C. Hollweg, Kansas City; Blaine Z. Hibbard, Kansas City; R. A. Stufflebam, Springfield; William C. Allen, Columbia; Byron M. Stuart, Boonville; Ben Koon, Bolivar. Messrs. John W. Noble, Kennett; Arthur W. Seeds, Chicago; Hollister Smith, St. Louis; Gary L. Schnedler, Springfield; Allen D. Smith, Kansas City; Lemoine Skinner, Jr., Tom O'Brien, St. Louis; Tom P. Fox, Don Brummall, Bob Carroll and Ray McIntyre, Jefferson City.

Dr. Fisher called the meeting to order and requested approval of the Council Minutes of May 11, 12, which had been distributed in the usual manner.

On motion of Dr. McCraw, duly seconded, the minutes of the May 11, 12, 1968 Council meeting were approved.

Dr. Fisher then requested approval of the minutes of the Special Council meeting held in Kansas City on July 28, 1968. He explained that the Special meeting was held primarily to get the views and position of the Council regarding the proposal submitted by the Research Center, School of Business and Public Administration of the University of Missouri, which was submitted to the Missouri Regional Medical Program for funding of a study of health care costs in Missouri.

After discussion and on motion of Dr. Kerr, duly seconded, it was agreed that these minutes be approved, but that a synopsis of the minutes be published in Missouri Medicine instead of the complete minutes which consist mostly of discussion.

Dr. Franklin reviewed a detailed financial report as of Aug. 31, 1968, showing total receipts and disbursements for the period January 1 through August 31.

Dr. Franklin also stated that the proposals which will be presented to the next Budget Committee meeting in December probably will bring up the question of an increase in dues. He stated that in checking other state associations, Missouri's dues are among the lowest and, in view of proposed increased activities, an increase in dues may be necessary.

After discussion, on motion of Dr. Gunn, duly seconded, the Treasurer's Report was approved.

Dr. Fisher appointed the following members to the Budget Committee for 1969: Drs. Max S. Franklin, St. Louis, Chairman; David N. Kerr, St. Louis; Doyle C. McCraw, Bolivar; Joseph L. Fisher, St. Joseph; Gerald L. Miller, Kansas City; and Lysle M. Bach, Hannibal. It also was decided that the Budget Committee would meet on Dec. 13, 1968, prior to the regular meeting of the Council.

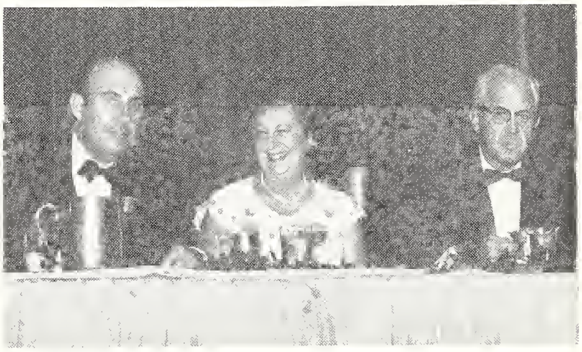
On motion of Dr. Cope, seconded by Dr. Kerr, it was agreed that the Budget Committee take into consideration the long range planning proposal in deciding on any necessary increase in dues.

■ Dr. Cope presented a copy of Form SB-811 received from the St. Louis Blue Cross which requests certain information on patients which, in his opinion, is considered privileged. This particular form requests information regarding history and physical examinations, consultations, operative notes, discharge summary, progress notes and, also, (1) physician's orders and (2) Utilization Review Reports.

Discussion followed regarding not furnishing this information, with the exception of specific unusual cases. It was suggested that a letter be written to the St. Louis Blue Cross to find out why such information is being sought and of what their present contract consists.

A letter was prepared which was reviewed by the Council. On motion of Dr. Benoit, it was agreed to table this item until Sunday so that the letter could be changed somewhat and further considered by the Council. Motion was duly seconded and carried.—**Referred to Resolutions Committee.]**

Mr. McIntyre reported on a number of meetings which have been set for September as follows: September 15, Committee on Nursing and Paramedical Personnel; September 22, Medical Economics Contract Committee with Dr. Paul Leslie and Proctor Carter as guests; September 22, Infant and Child Care Committee, which will discuss



(*Left to right*) Dr. Hubert A. Ritter, President of the St. Louis Medical Society, Mrs. Joseph L. Fisher and Dr. Fisher, President-Elect of the MSMA, were honored guests at the 1969 Presidents' Banquet.

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the recommendations that came from the AMA in regard to the Infant Mortality and Perinatal study; September 29, joint meeting of Trauma and Disaster Medical Care and National Defense; October 3, meeting of MSMA Comprehensive Health Planning Committee, with Dr. Potter of St. Joseph, Chairman. Dr. Potter was appointed by the Governor to his Advisory Committee on Comprehensive Health Planning. The Governor's Advisory Committee will meet on October 3. Dr. Potter then will report back to the MSMA Committee. Mr. McIntyre stated that apparently some changes are planned in the basic health planning philosophy under the Missouri Program.

Other meetings planned are a meeting of the Missouri Health Council on September 24 and a meeting at Missouri University on Medical Manpower on September 25. He also stated that on October 2 and 3, the AMA will have another important conference on Health Quackery at the Drake Hotel in Chicago. Part of the meeting on October 3 will be a closed session. He said he hoped some of our MSMA members would be able to attend this particular conference and that some members of the staff would attend. He said that additional meetings include an AMA Legal Conference on October 4 for Medical Society representatives and legal consultants; October 5 and 6, Second National Conference on Medical Ethics sponsored by the AMA; October 7, 8, 9, Kansas City Southwest Clinical Conference; November 22, 23, Annual M.D. Day at the University of Missouri; March 1, 1969, a workshop on Medicine and Religion to which the chairmen of state association committees will be invited to attend. He requested permission of the Council to invite Dr. Troy Morgan, Chairman of the MSMA Committee on Medicine and Religion, to attend at MSMA expense.

On motion of Dr. Benoit, duly seconded, it was agreed that Dr. Morgan be requested to attend this conference.

On motion of Dr. Cope, duly seconded, it was agreed to request Dr. John Matthews to attend the Health Quackery Conference in Chicago.

On motion of Dr. Kerr, duly seconded, it was agreed that the MSMA legal counsel be requested to represent the MSMA at the Legislative Conference on October 4, along with members of the staff, with expenses to be paid by the Association.

■ Mr. McIntyre also reported he had received a letter from Mr. Paul Adams, Executive Secretary of the Osteopathic Association, regarding the MSMA House of Delegates resolution requesting a joint meeting of liaison committees to discuss the possibility of future training of osteopathic interns and residents in medical hospitals in Missouri. Mr. McIntyre stated that the Osteopathic Association would notify us as soon as possible after their meeting at the end of September in regard to the proposed meeting of liaison committees. If and when these committees meet in joint session, Mr. Adams proposes additional matters of mutual interest also be discussed.

After discussion, on motion of Dr. Miller, it was agreed that the President be authorized to appoint a Liaison Committee for Osteopathic Medical Relations and direct the committee to meet with a similar committee of the Missouri Osteopathic Association to consider matters of mutual interest and report back to the Council. The motion was duly seconded and carried.

Mr. McIntyre reported that resolutions adopted by the 1968 House of Delegates were sent to the Governor over Dr. Kerr's signature and a reply was received from the Governor. These resolutions dealt with increasing the number of qualified physicians in Missouri, establishing a medical school in Kansas City and Comprehensive Health Planning.

Dr. John Matthews reported on several matters which were referred to the Laboratory Committee and, subsequently, were considered by the Legislative Committee. One was the suggestion that the Missouri Law, which has been studied by the MSMA Laboratory Committee in regard to blood alcohol content, be changed from .15% to .10%.

The second item referred to the Laboratory Medicine Committee was the R.P.R. card or circle test for syphilis, which recommended that this still be on an experimental basis in a few laboratories.

The resolution regarding Human Blood as a service and not a sale also was considered by the Laboratory Medicine Committee. The Committee recommends that this resolution be implemented in the next session of the Missouri General Assembly.

The Council also referred to the Legislative Committee for implementation the resolution pertaining to passage of a State Medical Examiner Law. An attempt will be made to implement this resolution in the next Missouri General Assembly. It was thought that a bill similar to the one introduced in the 1967 session is in order. It also was suggested that MSMA act as a supporting organization, but not the sponsor of the bill.

After further discussion, on motion of Dr. Benoit, duly seconded, it was agreed that the matters referred to the Legislative Committee be approved.—**Referred to Miscellaneous Affairs Committee.]**

Mr. McIntyre reported to the Council that the Association had received a beautiful Conference Table for the new conference room as a gift from Dr. and Mrs. Doyle C. McCraw. He stated that the table is 12 ft. long and 4 ft. wide, with a formica top and that we intend to make good use of it for Committee meetings, etc.

Dr. Fisher expressed sincere thanks and deep appreciation to Dr. and Mrs. McCraw for this most useful gift. On motion of Dr. Kerr, duly seconded, it was agreed that an official letter of thanks be forwarded to Dr. and Mrs. McCraw.

A brochure from the Louisiana State Medical Society regarding Chiropractic was displayed. It was suggested that this brochure be reviewed by Dr. Matthews. After discussion, it was agreed that the Executive Secretary be authorized to obtain copies of this brochure for proper distribution. The motion made by Dr. McCraw was duly seconded and carried.

■ Dr. Blaine Hibbard, Chairman, presented the report of the MSMA Committee on Utilization Review which met on May 16, 1968, with only two members of the Committee present, along with representatives from the Missouri Division of Health, General American Life Insurance Company, St. Louis Blue Cross and Kansas City Blue Cross. The Committee reviewed a study made by Kansas City Blue Cross and Blue Shield of the records available to date covering patient care rendered in Extended Care Facilities under PL 89-97. This study was prepared by W. A. Slentz, M.D. Dr. Slentz' report indicated it was difficult, in fact, almost impossible, to decide which patient qualified and which did not for coverage in an Extended Care Facility.

The Committee presented two recommendations for Council approval to be submitted to Congress for an amendment to PL 89-97 as follows:

1. Because presently PL 89-97 and regulations thereof are medically impossible to implement, we urge amendment so that Extended Care Facilities, wherever possible, be integrated with the base hospital in which the patient is originally admitted.

2. Similar amendment be made to utilize wherever possible the hospital utilization review committee for patients in Extended Care Facilities.

Extensive discussion followed regarding the above two recommendations and it was the consensus of the Council that these two recommendations be disapproved. Upon motion duly seconded, this part of the report was rejected.

Dr. Hibbard called attention to an item in the report which related to a letter from General American Life Insurance Company regarding intermediary regulations for control of abuses and the recommendation that an article or statement be prepared for presentation to the Editor for publication in MISSOURI MEDICINE which could be used for permanent reference of the MSMA physician membership.

After discussion, it was agreed that Dr. Hibbard prepare such a statement for submission to the Editor.

On motion of Dr. Cope, duly seconded, it was agreed that, with the exception of the portion of the report which was disapproved by vote, that the report of the Utilization Review Committee be accepted, that the Committee be commended for its work and that the Committee continue efforts to find solutions to these difficult problems.—**Referred to Resolutions Committee.]**

Dr. Miller, Chairman of MSMA Public Service Committee, gave a report on the AMA Communications Institute and County Medical Society Officers Conference held in Chicago on Aug. 20, 21, 1968. He stated that it was a good and well-attended meeting and that representatives from the various county medical societies also attended. He urged everyone who could to attend future meetings of this type. He mentioned briefly a number of successful projects being carried on by county and state medical societies which are designed to promote improved public relations as well as better interprofessional relations.

Dr. Miller also discussed the proposed MSMA Annual Officers Conference, stating that the best time for the Conference seemed to be in January of 1969. He stated that the conference is tentatively set for Jan. 11, 12, 1969 at the Ramada Inn, Jefferson City, beginning at 1 PM on January 11, and concluding with a luncheon on January 12. It was suggested that there be a *no speaker luncheon* on Sunday. He stated that last year's session was primarily an orientation for new and experienced county society officers and that, basically, this idea should be carried through in this year's Conference. He reported that Jim Reed of the AMA Communications Division has agreed to be one of the speakers. It was suggested that we obtain legislators and, perhaps, a newsman to be on the program. Several names have been offered and current plans are to have discussion groups and workshops. Dr. Miller requested Council approval on (1) acceptance of the time and date of the program and (2) a theme similar to that for last year's program with other suggestions as presented.

On motion of Dr. Kerr, duly seconded, Dr. Miller's report was approved.

Mr. Carroll reported that he had attended the Regional Conference on Health Care Costs held in Kansas City on June 25-27. Others in attendance included Drs. Vernon E. Wilson, Columbia; Francis M. Maple, Springfield; and Sidney Rubin, Kansas City; hospital administrators; and health planning insurance officers, both the Blue Plans and private, etc. He stated that he was the only lay member of a medical society present. He said it was the consensus of opinion that no solution could be expected at this time and that he had heard no one complain of high physician fees. He stated that there was very little support for government sponsored programs.

■ Dr. Wilson presented a request to the Council for a copy of the usual and customary cut-off fee schedules developed under the auspices of the MSMA Medical Economics Contract Committee for the Title XIX program in Missouri to be used in connection with the Missouri State Crippled Children's Service. He stated that the Service has been providing care to children now being covered under other acts. He also stated that the State Legislature has continued to make coverage in both cities and rural areas, but that some care is now paid through Medicaid previously covered under the Crippled Children's Service. He stated that a registry of children who need care is being compiled and they would like to have fees paid for physician charges comparable to those in the Medicaid program.

After further discussion, on motion of Dr. Cope, duly seconded, it was agreed that the usual and customary cut-off fees developed under the auspices of the MSMA Medical Economics Contract Committee by the various specialty groups be supplied to Dr. Wilson for use by the Missouri State Crippled Children's Service (1 dissenting vote).—**Referred to Resolutions Committee.]**

■ Dr. Mayer, Dean of the University of Missouri Medical School, presented some new considerations for Continuing Medical Education Programs at the University of Missouri Medical Center, stating that most previous programs may have had a weakness in that they are too didactic in nature. He said one program might be to invite practicing physicians to come to the medical school and see patients there with attending physicians, as do interns and residents. Under this program, physicians might come in to the Medical Center and spend one full day, perhaps from 10 AM to 4 PM, seeing patients with the doctors in the clinic and hospital. He pointed out, however, that this possibly should include the osteopaths who have been participating in some of the continuing education programs. He requested MSMA's thoughts about such a program for physicians to come in at scheduled sequences to see patients along with house staff in the Medical Center.

After considerable discussion, it was agreed, on motion of Dr. Cope, duly seconded, that the Council approve this program.

Dr. Mayer then brought up the subject of the telephone network system which now has 20 transmission stations and 20 telephone lines to each of different areas of the state with two-way Communication. Material which is pertinent to the slides, etc., are sent out in advance to places where the viewing will take place. Slides will remain in the local area so that there will be opportunity for replay and rebroadcasting at different times. He stated that judging from the information obtained from these 20 stations, they then will be able to determine whether or not this service should be continued and, in time, self-sustaining. He stated there would be programs in nursing and other allied health fields. The preliminary response has been good.—**Referred to Miscellaneous Affairs Committee.]**

■ Mr. McIntyre presented the report of the Scientific and Postgraduate Work Committee for Dr. Yore, the Chairman, who was unable to be present, and gave a resume of the program to date. He also suggested, if the Council approved, that the Council meeting prior to the meeting of the House of Delegates be held again on Wednesday evening, as it was last year, in order to provide sufficient time to prepare the Supplementary Report on the Council in time for the House. It was pointed out that the first session of the House of Delegates was originally set for 2:30 PM on Thursday, March 20.

After discussion, it was moved and seconded that the House of Delegates begin at 1:30 PM instead of 2:30, and that Registration begin at 11 AM instead of 12 noon.

Mr. McIntyre gave an up-to-date report on the program, including speakers and titles which have been received up to this time. It also was suggested that no social functions be scheduled for Thursday night, March 20, because of interference with Reference Committee meetings. It was suggested that Specialty Society meetings could be held on Wednesday, prior to the opening of the MSMA session, so as not to interfere with the MSMA session and possibly to increase attendance. Dr. Matthews suggested the Specialty Societies plan duplicate mailings from their own organizations to their own memberships.

Dr. Kerr appointed the following members to the Local Committee on Arrangements for the 1969 Annual Session: Drs. Walter T. Gunn, St. Louis, Chairman; Robert A. Mayer, Clayton; and James C. Cope, Columbia.—**Referred to Medical Education Committee.]**

Dr. Washburn presented a report of the AMA Annual Session in June, 1968, and reviewed some of the actions of the House of Delegates. He stated that there were nine active campaign candidates for the Board of Trustees. Dr. Dwight Wilbur took office as President and Dr. Gerald Dorman was elected President-Elect. Dr. Benoit appeared before the Reference Committee which considered health care costs, and his discussion of the Missouri proposal for a study of health costs was mentioned in the Reference Committees report to the House, but no action was taken on the Missouri recommendation because no resolution had been presented or any report from the AMA Board of Trustees on this subject had been given to the House. The Council on Health Manpower was created by the AMA House of Delegates and it had already had a meeting.

■ Dr. Washburn reported that one directive in regard to osteopaths came from the Board of Trustees and another was a resolution on training of residents. This was referred back to the Board with a report to come to the Fall meeting. It was reported that it seemed the AOA does not want to cooperate with the AMA. The AMA also urged state and local medical societies to adopt the AMA policy on Chiropractic and alert the public on the cult of chiropractic.—**Referred to Miscellaneous Affairs Committee.]**

It also was reported that a dues increase was not recommended at this time. Dr. Washburn reported that Dr. Neilson was appointed Chairman of Reference Committee D and Dr. Benoit served as a teller. Dr. Washburn also reported that all the wives of the Missouri delegates were most helpful in the MSMA hospitality suite operation and that all active campaign candidates were invited to the Missouri Hospitality Suite for discussions of their candidacies. Dr. Benoit was appointed to the AMA Committtee on Health Financing, which is a committee of the Council on Medical Service.

Mr. Seeds reported that no more definite AMA action regarding the Missouri study on health care costs is contemplated at this time. Dr. Wilson reported the Missouri Regional Medical Program has secured some money for Dr. Buesseler for a definite portion of this study in Missouri (physicians costs) and they will continue to try to finance the complete study from other sources.

On motion of Dr. Gunn, duly seconded, the report of the AMA Delegates was accepted with thanks.

Dr. Kerr called attention to a letter received from the AMA requesting names (with background information) of physicians to be sent to the AMA for possible appointments on various committees and councils of the AMA. He reported that names submitted shortly after the Council meeting could still be considered. Dr. Kerr suggested the names be submitted before the Council adjourned on Sunday morning.

After discussion, on motion of Dr. Gunn, duly seconded, it was agreed that the list of names be presented to the President and Executive Secretary for implementation and that a carbon copy of this list be sent to the AMA Delegates for their information.

■ Dr. Koon of the Missouri Academy of General Practice requested approval of the Council in regard to an application for an operational grant submitted to MRMP for "Promotion of Early Detection of Cervical Cancer in the Office of the Family Practitioner." He stated an application had been made to MRMP for an operational grant and that they had been advised by the project review committee to seek the approval of the Council of MSMA. He stated the MRMP did accept the application, but that it was turned down by the Advisory Council. He also stated the application would be resubmitted to MRMP if the Council approved it. Dr. Koon explained that three years ago this program was started by the American Academy of General Practice and that 150 members out of the total membership of 600 of the Academy were participating in the program. He stated that, as of now, 30,000 pap smears have been taken in the state, and it is recommended that all female patients have this test as a routine. He reported that of the 30,000 smears taken, 10,000 have been done on women having their first pap smear. Dr. Koon explained it is becoming very difficult to handle this project because of the volume of work involved which is now being handled in his office. He stated the Department of Community Health and Medical Practice could handle this project with the proposed grant in order to hire a secretary and four medical students per year, to inform physicians throughout the state of the program and tell them what to do. He stated that these smears are returned to his office, the data is compiled and reports sent by pathologists are tabulated by the U.S. Public Health Service.

After further discussion, on motion of Dr. Wray, duly seconded, the Council approved the project of "Early Detection of Cervical Cancer in the Office of the Family Practitioner" sponsored by the Missouri Academy of General Practice.—**Referred to Constitution and By-Laws Committee.]**

■ Discussion followed regarding the item which was tabled on Saturday in regard to a letter being sent to Blue Cross protesting the information requested on Form SB-811, which called for extensive information about patients. Dr. Cope read the proposed letter to be sent to Mr. Rexford of the St. Louis Blue Cross. After discussion, on motion of Dr. Cope, duly seconded, it was agreed that the proposed letter be sent to Mr. Rexford, with the deletion of one paragraph.—**Referred to Resolutions Committee.]**

Mr. McIntyre requested approval of the Council for the expenditure of approximately $1,000 for the purchase of chairs for the Conference Room. He stated funds are available in the budget, but that he wished the Council's approval before spending this amount. On motion of Dr. Cope, duly seconded, Mr. McIntyre was authorized to purchase the chairs for the Conference Room.

Mr. McIntyre reported he had had several requests recently regarding the refunding of dues by the State Association in the event that a member of a county society dies shortly after having paid his dues. Mr. McIntyre stated there is no policy at the moment to guide the state office in this matter. He also stated there is no provision for this in the Constitution and By-Laws and he requested guidance from the Council in order to be able to handle these situations when they are called to his attention.

After discussion, on motion of Dr. Cope, duly seconded, it was agreed that on request of the County Society, the Executive Secretary be authorized to refund State Association dues on the same basis adopted by the respective County Society.

Dr. Fisher opened the meeting for discussion regarding the long range planning agenda, which was considered on Friday evening, and how it might be included on the agenda for the Officers Conference on Jan. 11, 12, 1969. It was suggested that, perhaps, there be six workshop tables to consider the six items on the agenda, i.e., members assigned to Table 1 would discuss Item I, etc. It also was pointed out that if this agenda is included, the time would be too short and would limit the original purpose of the Conference, which is to acquaint new presidents and secretaries of county medical societies with the work of the State Association. This matter was left to the discretion of the Public Service Committee. Special invitations to the Conference will be sent to Presidents, President-Elects and Secretaries of component county medical societies, chairmen of Public Relations and Legislative Committees and to MSMA officers. It was suggested that this program could be publicized through Missouri Medicine stating the Conference will be open to all members who wish to attend and that they are cordially invited.

The Council again expressed its thanks and appreciation to Dr. and Mrs. McCraw for their hospitality on Saturday evening and for the delightful day on Friday.

The Councilors reported on various items of interest in their areas, including meetings and special events scheduled.

In view of the AMA Interim Session, which is scheduled for the first week in December, it was decided on motion of Dr. Wray, duly seconded, that the next meeting of the Council would be held on Dec. 14, 15, 1968 at the Ramada Inn, Jefferson City.

It also was decided that the Budget Committee will meet on December 13 at 4 PM at the Ramada Inn, Jefferson City.

Dr. Kerr mentioned that at the Council meeting in May, 1968, we had a request from the Missouri Association for Retarded Children for MSMA to cosponsor a Mental Retardation seminar to be held at the University of Missouri in October, which was approved. However, at the time no funding was involved. Dr. Kerr mentioned that he had received a letter again from that Association stating they would like a donation from MSMA to help with this seminar. After discussion, on motion of Dr. Cope, duly seconded, it was recommended that a reply be sent to them expressing our regret that we cannot fund this project.

"Well, sir! This certainly is a distinguished head table. I'm the only one up here I never heard of!" These were the opening remarks of "Timothy Hays, Mayor of Whoopup, Mo." who entertained approximately 300 guests at the 1969 Presidents' Banquet with his homespun humor and hilarious comments. When he's not "speakin' somewhere," the Mayor is known as Jack Taylor of the Public Information Department, University of Missouri—Columbia.

Dr. Kerr also mentioned that he had received notification from the Michigan State Medical Society and also from Wisconsin State Medical Association in regard to the memorial stamp to Dr. William Beaumont. He stated the Michigan Legislature went along with backing this endeavor of the Michigan Medical Society. He stated that the Commemorative Stamp was for 1972 and wondered if our State Legislature might go along with this idea.

After discussion, on motion of Dr. Benoit, duly seconded, it was agreed that this matter be referred to the Legislative Committee for implementation.

Dr. Whitener reported that a letter had been circularized to the Pharmaceutical Companies requesting a donation for the Missouri State Medical Foundation. He said from 12 to 15 replies had been received and all had refused, stating that they support the AMA-ERF program. He recommended the next step should be to contact the retail drug stores.

■ Dr. Stufflebam presented the report of the Committee on Study of Cardiac Disease for Dr. Janney, the Chairman, who could not be present. Dr. Stufflebam reported

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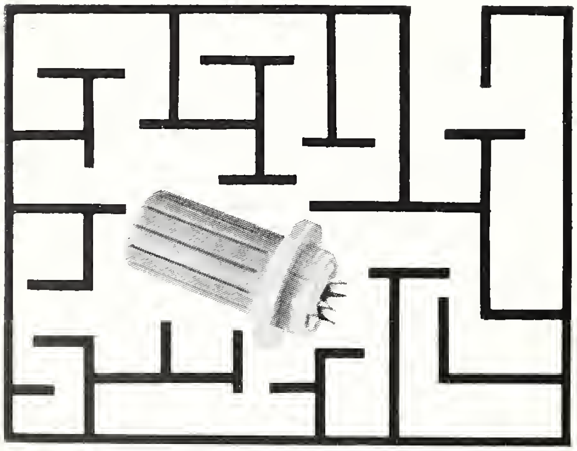
that the Committee had studied two projects, both of which were approved by the Committee, and requested Council approval for these proposed projects which were as follows: (1) The Heart Sound Screening Program, using the Phono-Cardioscan, and (2) Program in Primary Prevention of Rheumatic Fever, using the Fluorescent Antibody Microscope to detect type "a" strep. Dr. Stufflebam explained that the project in heart sound screening of school children will be conducted in the first, fifth and ninth grades. He stated that if a positive screen is obtained, the child will be asked to return for a second screen. If a second is obtained, a letter will be sent to the parents suggesting further study. A letter also will be sent to the child's personal physician. He stated the project will be subject to approval of each of the local medical societies where these tests will be done. He also stated this project is under the auspices of the Missouri Heart Association and was presented to the Missouri Regional Medical Program for funding, contingent upon approval of the Council of MSMA. The program on Primary Prevention of Rheumatic Fever through school screening for group A streptococci is to be a pilot project to be carried out in one school in Butler County. This is to be a joint project of the Missouri Division of Health and the Missouri Heart Association to be funded by these two organizations. Dr. S. B. Beecher, District Health Officer for Popular Bluff, has been asked to gain the approval of the Butler-Wayne-Ripley County Medical Society for this project. Both of the above projects have been approved by the Missouri Heart Association.

After discussion, on motion of Dr. Miller, duly seconded, it was agreed that the report of the Committee on Study of Cardiac Disease be approved and that the two proposed programs be approved provided the approval of the county medical societies in the areas involved is obtained.—**Referred to Medical Education Committee.]**



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■ Dr. Kelley reported on the Joint Committee meeting of Missouri Medical Service and MSMA regarding the selection of voting members to the Blue Shield Board, which was held on July 14, 1968, at the Chase Hotel in St. Louis. He stated it was the unanimous consensus of the group that Dr. Kerr serve as chairman of the meeting. Dr. Kerr called attention to the MSMA House of Delegates resolution, adopted March 31, 1968, the text of which follows:

"*Resolved*, That the House of Delegates requests the President of MSMA appoint a committee of physicians from the component medical societies of the area served by St. Louis Blue Shield to work with a committee from St. Louis Blue Shield whereby changes in the by-laws of St. Louis Blue Shield will be effected to allow nomination and election of the physician members of the Voting Board and Board of Trustees of St. Louis Blue Shield from and by the physician of the area served. This should fairly represent the different areas of the St. Louis Blue Shield Plan in Missouri."

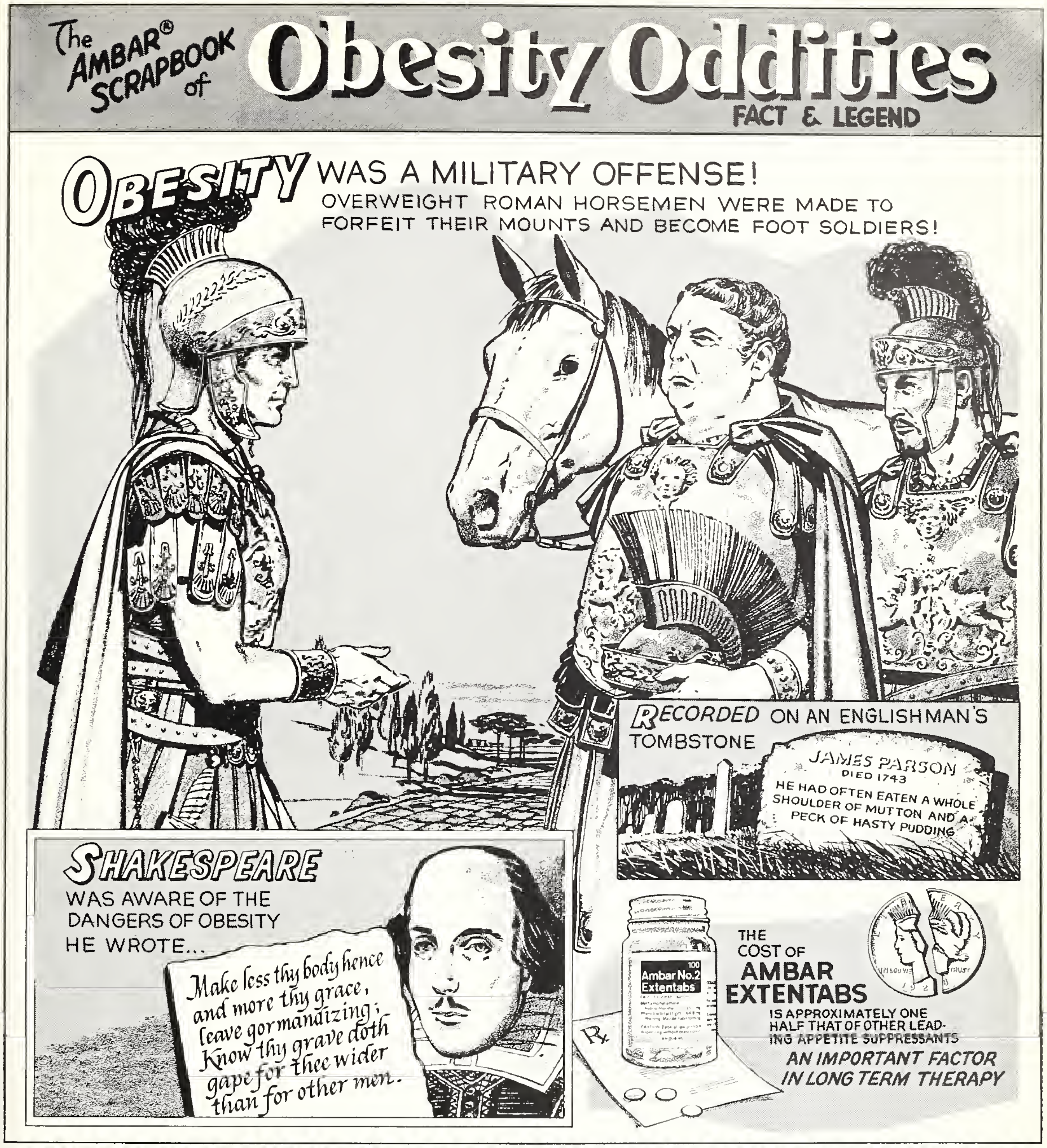
Mr. O'Brien explained the make-up of the MMS Voting Board and the current method of its selection. He noted the Board consists of 81 members, 54 of whom are physicians. The remaining 27 are lay representatives of the subscribing public. He noted also that 18 of the physician-members represent the three outstate districts of the plan's service area—Districts 1, 2 and 3. The remaining 36 physician-members of the Voting Board are from District 4, the St. Louis Metropolitan area. Nine of the latter are members of the St. Louis County Medical Society and 27 are members of the St. Louis Medical Society.

Dr. Stuart submitted an alternative proposal to one presented by Dr. Kelley. It was decided, after considerable discussion, to approve the proposal Dr. Kelley suggested. It would take a new approach to the nomination of members of the Voting Board, but would require no change in the by-laws of the St. Louis Blue Shield Plan. The text of Dr. Kelley's proposal is as follows:

> "The Joint Missouri State Medical Association-Missouri Medical Service Committee considering methods of selecting physician members of the St. Louis Blue Shield Voting Board requests that the MMS Board of Trustees, in accordance with Article IV of the By-Laws of MMS, set up a formal mechanism by which the MSMA component medical societies of each of the four Blue Shield districts can collectively make nominations of participating members to fill vacancies that occur in their respective district's representation on the Blue Shield Voting Board, with the provision that such nominations will be submitted for vote of the Voting Board at its annual meeting, and that the procedures set up will not in any way infringe on the privilege of any Voting Board member to make additional nominations at the annual meeting of the Board."

It was reported that the above proposal, after discussion, on motion, was duly seconded and adopted by the Joint Committee of MMS and MSMA. It was reported that the Executive Committee of St. Louis Medical Society accepted this proposal.

After further discussion, on motion of Dr. Gunn, duly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JAMES PARSON
DIED 1743
HE HAD OFTEN EATEN A WHOLE SHOULDER OF MUTTON AND A PECK OF HASTY PUDDING
SHAKESPEARE
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HE WROTE...
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seconded, the report of the Joint Committee of MMS-MSMA was approved.

Discussion followed regarding a problem concerning St. Louis Blue Cross and its proposal to extend services to include drugs, nursing home care and several other things, which is a result of a national sponsored program. A rather extensive explanation was given by Dr. Kelley and Mr. O'Brien for informational purposes only. No action was taken on the report.—**Referred to Resolutions Committee.]**

Meeting of Dec. 14-15, 1968

Joseph L. Fisher, M.D., St. Joseph, Chairman, called the meeting to order. The following persons were present: Drs. Fisher, Walter T. Gunn, St. Louis; Robert A. Mayer, Clayton; James C. Cope, Columbia; Rolla B. Wray, Nevada; Gerald L. Miller, Kansas City; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; W. D. English, Cardwell; David N. Kerr, St. Louis; Doyle C. McCraw, Bolivar; Max S. Franklin, St. Louis; Joseph V. Finnegan, St. Louis; A. W. Neilson, St. Louis; Stanley S. Peterson, Springfield; J. Loren Washburn, Versailles; William D. Mayer and W. C. Allen, Columbia; William B. See, Columbia; Richard W. Yore, St. Louis; John T. Crowe, Cape Girardeau; Edwin M. Powell, Springfield; Messrs. John W. Noble, Kennett; Hollister Smith, St. Louis; Edgar Mothershead, Clayton; Gary Schnedler, Springfield; Allen D. Smith, Kansas City; Lemoine Skinner, Jr., T. R. O'Brien, St. Louis; Ray McIntyre, Tom P. Fox and Bob Carroll, Jefferson City.

Mr. McIntyre reported that Mr. Royal Cooper had been employed to replace Mr. Don Brummall in the Executive Office and will join the staff on Jan. 6, 1969. Mr. Cooper was present and was introduced to the Council and Officers and others present.

It was reported that flowers were sent on behalf of the Council and Officers for the funeral of Dr. Thompson E. Potter of St. Joseph, and a note of appreciation was received from the family. Mr. McIntyre also reported that a letter of condolence was sent to Mrs. Charles Osborne when we learned of the death of Dr. Osborne, one of our Vice-Presidents, and a letter of appreciation was received from Mrs. Osborne. He also reported that Dr. Emma A. B. Thompson, an honor member of Grand River Medical Society now residing in Columbia, celebrated her 100th birthday in November. Flowers were sent to her and a very nice thank you note was received.

Mr. McIntyre reported that since Dr. Potter was a member of the Governor's Advisory Committee on Comprehensive Health Planning, additional names of physicians have been sent by Dr. Kerr to the Governor for consideration as a replacement for Dr. Potter. He stated that no reply had been received up to this time.

Mr. McIntyre then reported that a request had been received from the Woman's Auxiliary for $600 to help defray expenses incurred for their 1969 Annual Session. This was referred to the Budget Committee for approval.

He also called attention to an article in the Nov. 25, 1968 edition of *Medical Economics* which was written by Dr. Cope of Columbia and entitled "You Doctors Make So Damn Much Money."

■ Mr. McIntyre called attention to copies of letters exchanged with Mr. Rexford, President of Blue Cross Hospital Service, St. Louis, in regard to Form SB-811, as directed by the Council in September, 1968, requesting reasons for the use of this particular form.

Dr. Cope reported that on Nov. 13, 1968, another letter and similar form was received, indicating that Blue Cross was continuing use of the form in question. After discussion, it was decided to table the matter until Sunday and that Dr. Cope and Mr. Noble should formulate another letter to be sent to Mr. Rexford. On motion, duly seconded, this was approved.—**Referred to Resolutions Committee.]**

The Chairman, Dr. Fisher, called for approval of the Special Council meeting minutes of Sept. 6, 1968 which dealt with the Long Range Planning Committee report. On motion of Dr. Kerr, duly seconded, the minutes were approved.

Dr. Fisher then called for approval of the minutes of the Council meeting held on Sept. 7-8, 1968 in Springfield. On motion of Dr. McCraw, duly seconded, the minutes were approved.

Dr. Franklin presented a report on the financial standing of the Association as of Nov. 30, 1968, stating that the balance on hand would be sufficient to take care of the December bills and part of the January bills up until such time as 1969 dues are collected. He stated that we should be able to stay within our budget for the balance of 1968. On motion of Dr. Kerr, duly seconded, the financial report was approved.

■ Dr. Kerr reviewed the minutes of the Nov. 23, 1968 meeting of the Long Range Planning Committee and also of a subsequent meeting held in Miami on December 3 during the AMA session. He stated that consideration was given regarding restructure of committees, possibly placing them under three commissions, the purpose being (1) to bring the various separate committees under some sort of head (2) and, possibly, to eliminate or combine some committees. It was suggested that an Executive Committee of the Council be formally established with the Association President as its chairman. Six committees might well function directly under the Executive Committee, namely, Constitution and Bylaws, Legislative Matters, Budget, Planning, Grievance and Publication. It was proposed that members of the Planning Committee serve five year terms for continuity.

Functioning directly under the Council would be any Ad Hoc Committees to be named as needed and the following three commissions: Commission on Interspecialty Medicine, Commission on Public Affairs and Commission on Physician Relations and Health Manpower.

A diagram showing the breakdown was distributed to the Council for their comments and suggestions for establishing a basic structure. Dr. Kerr stated that a meeting of the Interspecialty Committee was scheduled for Jan. 19, 1969, at which time this matter will be presented to them for their comments and suggestions as to this proposed realignment.

Dr. Kerr also explained that the Council might direct such a restructure of committees on a trial basis before going to the House of Delegates with the matter.

Dr. Fisher asked about some provisions for recruiting young students into the field of medicine and getting physicians to locate in Missouri, particularly in rural areas, stating that both should be part of any present and future planning. Dr. Kerr explained that this would come under the proposed Physician Relations and Health Manpower Commission.

After considerable discussion, on motion of Dr. Miller, duly seconded, it was agreed that the report be accepted

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Missouri Medicine

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Remarks of David N. Kerr, M.D., President

Mr. Speaker, Delegates, Officers and Guests:

It has been my privilege and honor to serve this Association during the past year as your President. It has been the culmination of a long period of service in an Association of which I am deeply fond and for a profession of which I am proud and, also, humble to be a member.

During the past year, I have had the opportunity to visit many of our local societies, although not as many as I would have liked. Everywhere, I have been impressed by the interest shown in the profession regarding its socioeconomic status and regarding its role in providing continuing care to our clients, the people of Missouri, and of improving that care, especially in the realms of availability and of continuing education of our members.

The chief problem, it seems to me, is communications. To that end we have devoted a good deal of the effort of your MSMA this year. First of all, we have had a long-range planning committee in action, consisting chiefly of your officers, to try to restructure the MSMA so that it can more realistically and more efficiently answer the problems besetting us at this time. As a basic start, we are suggesting some restructuring of the committee system which will be presented to you for deliberation at this meeting. We fully realize that this is only a start. You have to crawl before you can walk, however, and I feel that restructuring is basic to meeting the problems which will come before us.

Secondly, the Interspecialty Committee has been briefed on the goals for which it was originally intended—to seek the advice and cooperation of the specialty groups in the furthering of MSMA policy and action. As authorized by action of this House of Delegates in 1967, this committee, by necessity, joined with the Medical Economics Contract Committee to help answer the pressing problem of Title 19 (Medicaid) in the state of Missouri. The splendid response of this Contract Committee, along with the dedicated leadership of Dr. Herbert Wiegand, the chairman, has resulted in a model of cooperation between state authorities and the State Medical Association which could well be a format, nationwide, for cooperation between Medicine and Government for a just and reasonable extension of medical help to our indigent.

It is to the credit of this Committee that we can point with pride to the status of Title 19 in the state of Missouri—due to a great extent to the voluntary cooperation of the medical profession in this state. There have been those who have been uncooperative, but they have been a distinct minority. Our problem now is to find more effective means for dealing with these few physicians.

David N. Kerr, M.D.

Thirdly, we have made two additions to our executive staff this past year. I am happy to announce that the position of Field Secretary, which has been dormant since the elevation of Ray McIntyre to the position of Executive Secretary, has been filled by the addition of Mr. Royal Cooper to the full-time

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staff. Mr. Cooper will be Field Secretary. We are hopeful that this will be of primary help in reestablishing local-state communications, especially in regard to reestablishing the Councilor District meetings to which your state officers may come to present more information about state problems on a day-to-day basis. These meetings, along with the continued development of an interim session of county medical society presidents and secretaries, contribute a great deal toward bringing us together as a united power for the strengthening of the influence of the MSMA in the proper care of the citizens of our state.

Our other new staff member is Mr. Robert Carroll who joined MSMA shortly after the last House of Delegates. Mr. Carroll is a former newspaperman and has had experience in the public relations field. His background, along with his enthusiasm, already has proved to be a distinct gain for the Association.

We have had one top-level meeting this year with representatives of the Missouri Osteopathic Association and we were totally agreed upon our policies regarding health legislation pending in our state. While they are not presently able to cooperate with us concerning recent policies of the AMA with regard to opening our doors to additional training for their members, I feel that our constituent societies can do much to promote this idea. This problem, also, is on the agenda for this meeting of the House of Delegates.

At the annual banquet of this Association, I will turn over the leadership of this Society to Dr. Doyle C. McCraw, who has been an active and effective worker for the medical profession for a great many years. Doyle will be faced with the continuation of the same problems with which we have been wrestling ever since the government decided to get into the medical field. I know he will be highly competent and effective. I should like to point out that since the encroachment of government, it becomes more necessary than ever for our profession to unite, to be aware of the issues and to see to it that the American people continue to obtain the best in medical care. This means total involvement by all of us in the affairs of our local, state and national organizations. This involves support and active help for the fine staff we have assembled in Jefferson City, which is headed by Ray McIntyre and includes Tom Fox, Bob Carroll, Royal Cooper, Jean Duensing, Bert Thomas, Rose Mahon, Wilma Sperry, Ruth Pack and Lorraine Chruma. Drop in at the State Office in Jefferson City next time you are there and see them in action.

In conclusion, I wish to thank all the committees which functioned so well during the year. I have mentioned Herb Wiegand, but others such as Dick Yore, who is responsible for our fine program here, and Jack Matthews, our Secretary and a man who is unequalled in the job he does for us year after year in the Legislative Halls, are two more whose names come to mind quickly. There are many others far too numerous to name. I also want to pay tribute to our Delegates and Alternates to the American Medical Association. They attend every meeting and are totally involved in AMA activities. They have made the Missouri Delegation a respected and influential force at the national level. Of course, the Council and the other officers of the Association have been most helpful and a constant source of guidance and inspiration for me.

If the Missouri State Medical Association is to meet its continuing responsibility in the years ahead we must have more funds with which to operate. Thus, I would urge all members of the House of Delegates to approve the dues increase which will be proposed here this week.

Finally, and basically, we all need to rededicate ourselves to the best in health care for our patients, to heal when we can, to improve where we cannot heal and to comfort where all is lost. This is our realm, this is the role no one else can fill and this is our primary responsibility.

Remarks of Doyle C. McCraw, M.D., President-Elect

Doyle C. McCraw, M.D.

Mr. Speaker, Members of the House of Delegates:

I follow in office a man to whom every Missouri physician owes a great debt. For many years, Dave Kerr has served the St. Louis Medical Society and the Missouri State Medical Association with distinction. His year as President has been the fitting climax to his long and faithful service to the medical profession of Missouri. I am proud to have him as a friend.

I am humbly and deeply grateful to you for the honor you have given me.

It is usually customary for the incoming President to make recommendations for the coming year. I have great confidence in the House of Delegates in your deliberations here today and in the Council and staff when the House is not in session.

We face many problems and, no doubt, there will be new ones. No one man or committee can resolve these problems. It will require the best efforts of all of us.

Many good suggestions have been made by my predecessors. Some of these need reemphasis and to these I will add a few of my own.

It is important for you to continue your support of the Missouri State Medical Foundation. We have a right to be proud of the Foundation which, since its founding in 1960, has made 553 loans to 225 medical students. Association members have contributed approximately $290,000 to the Foundation. This has been possible because of the annual assessments and your voluntary donations. I hope you will remember the Foundation in your wills and to those whom you have occasion to advise concerning their wills. It is hoped that memorials to loved ones or colleagues can be made through the Foundation.

I am most pleased to note that members of our Association have been increasing their support of th PAC movement. The joint billing procedure has been very successful. I hope your County Societies will permit this joint billing on a statewide basis. It has been very effective.

While on the subject of political action, I would like to call your attention to the Association's program of physician contact with members of our General Assembly. An attempt has been made by our executive staff to find a Key Man contact physician for every member of the Missouri House and Senate. These physicians can, in turn, provide important contacts between professional medicine and the General Assembly.

Never in our history has there been as much medically-oriented legislation as there has been this year in Jefferson City, and I can see little prospect for this total to decrease in the future. I would urge each and every one of you who knows a member of the Missouri House or Senate personally to inform our executive office staff so that your name can be added to the Key Man contact list. This is a program which already has begun to pay off and which has an even greater potential for the future.

I would like to recommend that the annual meeting for presidents and secretaries of county societies be expanded and, perhaps, include an interim session of the House of Delegates. There is much business that should not be held over for a year. I recommend that your local nominating committees get a commitment from a prospective president and secretary (before their election) stating that they will attend this meeting, if humanly possible.

I would like to see more of the county societies have Orientation for each new member and require attendance at a state meeting at least once during his first three years of membership. It is very important to get your younger members involved in their County Society and State Association affairs.

We must try to have better communication with our medical students. I'm sure apathy on our part is one of the causes for the growth of such organizations as the SHO or Student Health Organization.

Why can't we invite a student and his wife, if he is married, into our homes for a dinner or a weekend? Let's get better acquainted. Why not invite them to our House of Delegates and our Reference Committees? Why not Delegates from the ranks of students?

The Olson Committee, of which Dr. Wilson, Dr. King, Dr. Felix, Dr. Fisher and I were a part, found that less than 50% of the Missouri graduates of the three Missouri medical schools return to Missouri to practice. Missouri is 13th in population, but it is 41st in the number of entering medical students per 1,000 bachelor degrees awarded (1967). Missouri ranks eighth in number of Ph.D.'s awarded per 1,000 bachelor degrees.

Missouri needs a new medical school in Kansas City, and state support is needed for the private schools. Both of these programs must be carried out as soon as practicable.

Of 8,363 living graduates of our Missouri medical schools in 1967, only 2,245 or 26.8% were practicing in Missouri in 1967.

With the assistance of the staff, we polled all of the state associations to learn what other states are doing to recruit doctors (36 responded). Most of the states are doing little or nothing. A few have excellent programs which are beginning to pay off.

I suggest that we use the full time of one staff man for this work and that he be given sufficient secretarial help and expense account to coordinate the efforts of all of us. If each member recruited one doctor each ten years, it would add 450 doctors. We must create the climate for them. We must not lose sight of the economic facts of life. It is 1969, not 1939.

If we do not increase the availability of medical services and if the demand for our services is not satisfied, I fear that the politicians will change our system because they will say that the voluntary free enterprise system has not worked. A great deal currently is being done in the reevaluation of our medical education system in the nation. One plan which seems to be gaining support is for shortening the training period for physicians. Such a program could increase the number of physician graduates each year, but this would not necessarily increase the number in Missouri.

When I visit your local societies during my term in office, I hope to go into the subject of Medical Recruitment in more detail. It must be a major program for our Association.

Remember, our image is not what *we* think it is. It is what the public thinks it is. Public relations is basically what takes place between one patient and one doctor. The failure of a doctor to make a night call can undo good public relations built up over the years, and I admit that I am certainly not perfect in this regard.

Are you prepared to help the press tell the story of medicine? The right to know, as seen by the press, may conflict with the "Right to Privacy" as you know it. An informed press or other media should know the ethics by which a doctor is bound. Make it a point to meet with the press and have an understanding of our mutual problems.

We all owe our community something besides the right and privilege of serving the medical needs of the people. Of course, you are busy. You need what little spare time you have for your families and for rest and recreation. *Somehow,* we must find time to help our communities in a nonmedical way. We *must not* let our nonmedical friends provide *all* the leadership in community affairs. Infiltrate!

A number of the programs which I have been discussing with you today will cost money. I am certain, however, that it will be money well spent.

In view of the increasing costs of our present programs along with increases needed to cover anticipated new programs, I strongly feel that the Missouri State Medical Association must increase its dues for 1970. Thus, I would like to take this opportunity to heartily endorse the proposed increase in MSMA dues for next year, and I urge all members of the House of Delegates to approve this increase.

Again, I want to thank you for this great honor. With the help of all of you plus the other officers, the Council and the staff, I will try not to let you down.

Report of Mrs. E. F. Butler, President of the Woman's Auxiliary

Mr. Speaker, Dr. Kerr, Members of the House of Delegates and Guests:

It is an honor to stand before you this afternoon representing the Woman's Auxiliary to the Missouri State Medical Association—maybe a little frightening, but, nevertheless, an honor and a privilege.

As you listen to this report, I want you to keep in mind that it is about the accomplishments of the 28 organized county auxiliaries of the state of Missouri and not about what I have done.

On behalf of all Auxiliary members, as well as myself, I wish to express to you our thanks and appreciation for your concern and support. If it were not for your underwriting the cost of publishing and mailing our quarterly bulletin, *The RX Auxiliary News*, we would be unable to convey to our members, state presidents and some National Board members our purpose, important information and program planning. This is no small project in dollars and cents, especially with the increased cost of printing and mailing. Also, you contribute generously to our convention fund, making it possible for us to have a more worthwhile convention.

The Auxiliary members have continued to serve their community and uphold the ideals and objectives of both state and national programs as they have in the past.

We have a membership of 1,779, which is far less than what it should be, but we never stop striving to increase membership. This year, we lost some members by death, some who moved out of state and even a few who refused to renew their memberships. At the same time, however, we have 81 new members. We urge every physician's wife to become a member and to lend her influence to the Auxiliary in its effort to bring before other women of the state of Missouri dependable knowledge and a just appreciation of the real spirit, purpose and actual achievements of the medical profession. Is your wife a member?

All county auxiliaries, as well as members-at-large, have contributed in some way to raising money for the American Medical Research Educational Foundation—a total of $6,740.50 this year. The sale of Christmas cards, stuffed animals, stationery, playing cards, fruit cakes and private contributions to memorials, contributions in honor of the doctors on Doctors' Day and other projects have made this possible. We are proud to support medical research, medical schools and to help with the Loan Fund.

Mrs. E. F. Butler

Two county auxiliaries have in operation now, after many, many hours of planning, a Homemaker-Home Health Aide Service in cooperation with the Visiting Nurses Association. One of the auxiliaries raised $3,000, helped train aides and now maintains a speakers' bureau. This service is available to everyone residing in the respective county, regardless of race, creed or ability to pay.

This having been national election year, a number of our members, on a personal basis only, took active part in supporting the candidates of their choice. Legislation was stressed in all phases in the county auxiliaries and we were kept informed through our news bulletin.

International Health was supported by drugs, rolled bandages, Johnny coats and money being sent to the National World Relief Council. Also, four Vietnamese students studying at the University of Missouri Medical Center have been entertained by Auxiliary members and their husbands.

Doctors' Day is observed in many ways over the state—from contributions to medical school scholarships, gifts to hospitals, dinners and parties—all for our doctor-husbands. One auxiliary even had a "love-in" for their husbands.

In regard to other standing committees, such as Mental Health, Safety, Community Service, Health Careers and Rural Health, much has been done in these fields, but time does not permit me to elaborate on these.

Several hundred dollars are made available for nurse scholarships. Through the generosity of auxiliary members, six to eight girls each year are given the opportunity to fulfill their dreams of becoming a nurse.

Through the courtesy of Dr. Paul Whitener, letters of explanation about the Missouri State Medical Foundation were made available to all auxiliary members. Through this effort, several counties supported this project, with one county contributing as much as $100.

Members of each county auxiliary helped to meet the needs of its own community by serving on civic committees, giving gifts to State Hospitals, giving gift subscriptions of *Today's Health* to schools and libraries, assisting in Candy Stripers programs, holding Defensive Driving courses, giving money to hospitals, holding public relations meetings and assisting at the Blood Banks and many other community services.

The Executive Board set up and conducted five workshops for county officers over the state. These were held in May, making it possible to bring information and helpful programming material to them at the beginning of their year's work. These were well received, and it was requested that they be repeated this spring.

Our Annual Fall Conference was held in Springfield, with 76 in attendance. We were honored to have Dr. David N. Kerr bring us greetings from the MSMA and to have Mr. Ray McIntyre speak to us on Legislation.

We are most fortunate in having three members from the national office on our program for this convention. Mrs. John M. Chenault, President-Elect of the Woman's Auxiliary to the American Medical Association; Mrs. Virgil Ray Forester, President of the Woman's Auxiliary to the Southern Medical Association; Mrs. Virgil Ray Forester, President of Chairman from National; and Mr. Timothy B. Norbeck from the AMA office will each bring us a message.

I want to extend my personal thanks to Dr. Kerr, the MSMA Advisory Council, Dr. Fisher, Dr. McCraw and Dr. Gunn—and to Mr. Ray McIntyre and his staff for the many courtesies extended to me this year. An added privilege and delight was being a guest at your Officer's Conference last February. This is a courtesy extended to the Auxiliary which is greatly appreciated.

Remember, nothing is impossible for women with ambition. If at any time you have a project or a special service for which you would like to have help, just ask the members of the Woman's Auxiliary to the Missouri State Medical Association. These women are always ready and eager to be of any help possible to their parent organization.

The following poem, written by Mrs. Virgil Ray Forester of Oklahoma City, Okla., expresses my feelings, and I am sure all other doctors' wives feel the same:

I'M GLAD I'M A DOCTOR'S WIFE

God gave me a special mission,
  A very wonderful slice of life—
The most coveted one imaginable.
  That of being a Doctor's wife.

It has been said, that to be a Doctor
  Is to be an intermediary between man and God,
Which makes me feel positively holy—
  A Queen—with a golden rod.

I always remember, that it's my husband
  Who has all the brains—and not I.
I pray constantly for his skill to increase
  And to make him happy—I always try.

I never expect the glamour
  Of the Doctor's horse and buggy days,
But always, when I know of his success—
  His efforts I honestly praise.

I never try to wear a halo
  As in my civic duties I go about,
Even tho I am so terribly proud—
  My husband's praises I could shout.

I try to treat everyone with kindness and courtesy
  Personally—and on the phone.
In every way, I try to be helpful—
  Knowing that my Doctor can't do everything alone.

I never forget for one moment
  My very special mission in life—
And constantly give thanks to the Master Physician
  For the privilege of being a Doctor's wife.

—*Mrs. Virgil Ray Forester*

Give now to your student loan fund!

Send A Generous Contribution To

MISSOURI STATE MEDICAL FOUNDATION

515 E. High St., Jefferson City, Missouri 65101

Annual Session Minutes, First Session

(Continued from page 506)

as information to the Council only and that action be deferred until after the meeting of the Interspecialty Medicine Committee in January, 1969. The motion carried.—**Referred to Constitution and By-Laws Committee.]**

■ Mr. O'Brien reported that the carrier for the Group Major Hospital and Nurse program for members of MSMA has been losing money in the last several years due to increased hospital costs. He stated that this program has been in effect for about ten years and covers members, members families and office personnel of members. He stated that in 1968 the total claims paid exceeded the income for that period. He explained that the Major Hospital and Nurse program has a $250 or $500 deductible plan and the contract pays for 100% of hospital expense above the deductible and 75% of nurse expense above deductible. The present premium scale is for 18 to 39, 40 to 49 and 50 to 65 years of age. He stated that the new proposal would keep the deductible at $250 or $500 and add a $1,000 deductible plan with a sizable reduction in premium. The member also would have the right to select a maximum of $10,000 or $15,000 limit pertaining to a single illness. He explained the additional premium would be approximately 50% more than the premium now charged. Also, he stated, the program would cut off at 65 years of age because of Medicare. Mr. O'Brien stated that, even with the increased premiums, it is still a good program and that members could not do much better.

It was pointed out that if the program were not approved by the Council, the only alternative would be that the carrier would cancel the whole group and some members would not be able to get any other coverage. On motion of Dr. Wray, duly seconded, the proposed plan was approved.—**Referred to Resolutions Committee.]**

■ Mr. Fox presented a brief review of the minutes of the Committee on Nursing and Paramedical Personnel for Dr. John H. Walters, the Chairman, who was unable to attend. He called attention to the Clearing House which had been in effect for two years and stated that it was agreed to discontinue the Clearing House program since nursing school officials have been reluctant to release names of surplus student applicants. Mrs. Keith reported that very few schools had reported any surplus of applicants to her office. It also was reported that some surplus applicants for the three-year diploma programs were not qualified for four-year degree programs. Dr. Walters was to meet with Dr. William Danforth and also with Dr. Signorelli and Father Drummond, S.J. of St. Louis University School of Nursing. It was reported that programs and facilities are being developed and available to match loss of facilities due to closing three-year diploma schools and that student applicants found not to be qualified for collegiate programs are being encouraged to enter technical nursing and licensed practical nurse programs.

It was reported that the Committee considered the Nursing Research Project in Missouri to be under the direction of Mrs. Mauksch of the University of Missouri. The study will project the nursing needs in Missouri through 1990 and the necessary faculty, facilities, etc. to meet these needs.

It also was reported that the Illinois State Medical Association had sponsored a similar program in Illinois, but no financial assistance was given. Council approval was asked regarding support of such a program in Missouri. It was moved by Dr. Cope, and seconded, that the Council approve supporting this project with no financial assistance involved. The motion carried.

It was reported that a Masters Degree program in nursing will begin in the Fall of 1968 at the University of Missouri and a second program will begin in the Fall of 1969.

The following resolution regarding Recruiting Men into Nursing Service was submitted to the Council for approval and submission to the House of Delegates:

> Whereas, The present supply of nursing personnel in Missouri and over the country does not meet the demand, and
> Whereas, This imbalance in the next decade, as indicated by survey, will become more acute, and
> Whereas, Pilot experience indicates interest of male recruits in selective nursing positions, and
> Whereas, Current efforts by the United States Government are inadequate in the recruitment of discharged medical service personnel into health careers open in this country, and
> Whereas, The Medical Schools in the United States have made inadequate provision to properly utilize the experience and past training of such medical service personnel by not providing for availability of further training and utilization, therefore be it
> *Resolved*, That the Missouri Delegates to the American Medical Association Annual Session in July, 1969 urge AMA House of Delegates to endorse the recruitment and accredited training of male nursing educators and students. The House of Delegates should strongly advocate action by the Legislative and Executive branches of the government of the United States to take all the necessary steps to promote the above outlined objectives.

On motion of Dr. Kerr, duly seconded, the resolution was approved for presentation to the MSMA House of Delegates.

Mr. Fox reported that a request had been received from the Missouri Hospital Association for Missouri State Medical Association endorsement to implement a health career recruitment project through the Educational and Research Trust of the Missouri Hospital Association and funded by the Missouri Regional Medical Program. An application for a grant has been submitted to MRMP for this project. The request was for endorsement and support, but no financial assistance.

On motion, duly seconded, the Council approved the proposal of the Missouri Hospital Association.

It also was reported that the Missouri Board of Nursing plans to submit a proposal for an increase in nurse licensing and registration fees to the State Legislature. It was suggested a letter be sent over the President's signature indicating MSMA support or approval of a reasonable increase in such fees. A bill to this effect is to be introduced in the next General Assembly.

After discussion, on motion of Dr. Wray, duly seconded, it was agreed that the Council approve the Nursing Board proposal and that a letter be forwarded over the President's signature indicating support of a reasonable increase in licensure and registration fees.—**Referred to Medical Education Committee.]**

The Council met in Executive Session on Saturday morning to consider the 1969 proposed budget which was presented by the Budget Committee.

On motion of Dr. English, duly seconded, the following Budget was approved for 1969:

Salaries	$106,990.00
Furniture and Fixtures	1,500.00
Office Rent and Lights	7,680.00
General Expenses	2,500.00
Office Supplies	4,000.00
MSMF Assessments	35,250.00
Postage	5,000.00
MSMF Expenses	2,500.00
Journal Expenses	35,000.00
Equipment Rentals, etc.	2,200.00
Telephone and Telegraph	5,500.00
Pension Expenses	15,935.00
Legal and Professional	8,500.00
Taxes and Payroll	3,524.00
Travel Expenses	6,000.00
Meetings and Committee Expense	29,300.00
Annual Session	19,000.00
Total	$290,379.00

■ Mr. Fox reviewed the minutes of the meeting of the Committee on Infant and Child Care which was held on Sept. 22, 1968 in Jefferson City. The Committee reviewed and accepted a progress report on a School Health Teaching Program submitted by the State Department of Education, Division of Public Schools, which was approved by the MSMA House of Delegates and submitted to the State Department of Education for implementation.

Dr. Magness attended a joint meeting of the Committee on Health Problems in Education of the NEA and AMA conducted on April 21, 1968. A number of resolutions were adopted at this meeting and the Committee reviewed and accepted each in principle. Generally, the resolutions urged improved health education for the student and safer practices in school athletic programs. It was reported that most are in effect in some degree in the state of Missouri and possibly could be improved. The Committee also reported on the PKU Law and the Division of Health reported that some institutions are not complying with the Law or conducting tests only on a small percentage of the newborn delivered in their respective hospitals. It was stated that the physician, hospital and laboratory are all involved in complying with the Missouri Law. Attention was called, despite rumors of excessive cost, to the fact that the overall budget in the Missouri Division of Health for this PKU program is $18,000 annually.

Dr. Cope moved that, in view of previous information which was brought to the Council, the Council would like clarification on the cost of each positive PKU test that is found and requested that the Infant and Child Care Committee of the Association be requested to get a breakdown on actual cost to the State of Missouri for the PKU program. The motion passed. A detailed report was included in the report regarding Perinatal Studies and it was felt that there was some overlap which needed the opinion of the Maternal Welfare Committee. Dr. See, representing the Committee on Maternal Welfare, stated that any perinatal study should include obstetricians and pediatricians. He stated that such a combined effort is important for study of neonatal care to prevent premature births. He stated that these studies are time consuming and a real problem in hospitals that do not have a resident and intern program. The Committee on Infant and Child Care agreed that the Council be asked to officially approve a statewide program and to designate a committee to be responsible for implementation.

After discussion, Dr. Gunn moved approval of the report of the Infant and Child Care Committee. The motion carried. (The full report of the Committee is on file in the Executive Office.)—**Referred to Medical Education and Hospital Committee.]**

■ Dr. See presented the report of the Maternal Welfare Committee which met in Columbia on Nov. 3, 1968. He stated that the Maternal Death Studies of the St. Louis and Kansas City Gynecological Societies have continued and a report of these studies will be presented at the Annual Maternal Welfare luncheon on March 21, 1969. Dr. See also reported that the Committee reaffirmed its previous recommendations on any change in the State Law related to Abortion. The Committee also voted to change its statistical reporting year from the present November to November to correspond to the calendar year of the Division of Health.

The Committee also voted to make an effort to encourage a statistical study of maternal deaths attended by osteopaths so that state statistics will be more meaningful since about 10% of births are attended by osteopaths.

Dr. See reported that there is evidence of increasing need for study of perinatal infant mortality in the state. As reported, this was studied jointly by the Maternal Welfare Committee and the Infant and Child Care Committee. It was recommended that a separate Perinatal Infant Mortality Committee be established by the State Association with representation from the specialties of Pediatrics, Obstetrics, Anesthesiology, Pathology, Internal Medicine and other areas as indicated. It was suggested that such studies be on a hospital-by-hospital basis with coordination by Health Departments in the Metropolitan areas.

The Committee also considered the legality of sterilization procedures in Missouri. It was reported that any sterilization procedure, male or female, under present laws might be construed as assault in spite of free will assent and permit. The Committee strongly recommends that the Council and State Association do everything possible to insure prompt legal definition of this problem and passage of a clearly stated and understood law.

Dr. See then gave a brief report on the program to be sponsored by the Maternal Welfare Committee at the 1969 Annual Meeting, stating that Dr. George H. Gardner of Northwestern University will present a paper entitled "Management of Endometriosis," and also will be a guest at the Maternal Welfare luncheon that same day.

It was suggested that other states should be contacted for copies of their laws relative to sterilization for the Legislative Committee and the Maternal Welfare Committee to study.

On motion of Dr. Cope, duly seconded, the Report of the Committee on Maternal Welfare was approved with pertinent portions to be referred to the Legislative Committee.

Mr. Carroll presented the following Legislative Report for Dr. Matthews, Chairman of the Legislative Committee. He stated that the Medical Examiners bill is to be introduced in the coming session. It is practically identical to the one introduced in the last session and the Association is on record as approving it.

It is understood that some practitioner groups may make a strong effort to be included under Title XIX in Missouri in the 1969 Legislative Session, as well as change their present practice acts.

He reported that the present Drunk Driving Test Law has run into some problems and there appears to be a likelihood that a bid will be made to change it some.

There is a possibility that some sort of bill will be introduced to set ambulance service standards. A Good Samaritan bill will probably be introduced.

It is assumed that a bill will again be introduced to change the abortion law. It also is contemplated that a uniform Anatomical Gift Act will be introduced.

It is anticipated that legislation will be introduced to license physical therapists, laboratory technicians, laboratories and, possibly, psychologists. There are numerous other bills of a health nature which may be introduced that we are not aware of at this time.

It is assumed that the University of Missouri Board of Curators will ask for additional funds in appropriation bills to establish a four-year medical school at Kansas City.—**Referred to Miscellaneous Affairs Committee.]**

■ Discussion followed regarding the eye care situation in Missouri, particularly in rural areas where few ophthalmologists are available. It was suggested that the Council designate the Eye Health Committee to study the problem. After further discussion, on motion of Dr. Miller duly seconded, it was agreed that the Council instruct the Committee on Eye Health to assess the problem of eye care in the state of Missouri and bring back tangible recommendations to the Council.—**Referred to Medical Education Committee.]**

On motion of Dr. Stricker, duly seconded, the Legislative Report was approved.

■ Mr. McIntyre reviewed the minutes of the Medical Economics Contract Committee meeting which was held on Sept. 22, 1968 in Jefferson City with 21 persons present. He reported that the Division of Welfare was pleased with the way the program is running. It was reported that the Division of Welfare was anticipating new proposed programs which would demand more money and discussion followed regarding where this money would be obtained. It was reported that for the fiscal year beginning July 1, 1968 to June 30, 1969, the state has appropriated $15,769,000 and the Federal Government has appropriated $25,520,000, making a total of $41,289,000. Mr. Carter reported that the program, as it now functions, is in good financial condition.

It was reported that a small number of physicians, who had to be contacted continually for further information, were causing some problems (frequently the same ones). The feeling of the Committee was that the Medicaid program was operating in a satisfactory manner in comparison with many other states. It was stated that Missouri has taken this slowly, only covering welfare patients and it is not anticipated that the medically indigent would be included in this program in the near future. It was noted that the present federal law requires that the program include the medically indigent by 1975.

It was suggested that the MSMA discipline its own members who are causing continuing problems in the Medicaid program. However, in some instances, the physician in question may not be a member of the State Association.

On motion of Dr. Kerr, duly seconded, the Report of the Medical Economics Contract Committee was approved.—**Referred to Resolutions Committee.]**

Dr. Miller reported that our first Medical Society Of-

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ficer's Conference was held in 1967 and was a very successful meeting. It was decided then to hold such a conference annually. The 1969 Officer's Conference is scheduled for January 11-12 at the Ramada Inn, Jefferson City. Dr. Miller noted that the program would be similar to the last one. He stated that the program would be effective only if there is full participation and he urged the Councilors to make every effort to see that persons in their district are encouraged to attend this meeting. Officers of the County Medical Societies in all the districts should be encouraged to attend, as well as Public Relations and Legislative chairmen who are receiving special invitations. It also was stated that the meeting is open to the entire membership.

On motion of Dr. Kerr, duly seconded, the program was approved with special commendation to Bob Carroll for the program layout.

Dr. Peterson reported that the AMA Session was a working meeting and that everyone was kept busy attending the various reference committee meetings. He stated that the Constitution and By-Laws of the AMA were changed to take care of membership discrimination charges. In this respect, charges filed with the Judicial Council of the AMA against a state medical society may lead the Council to admonish such state society or, in the case of repeated situations, request the AMA House of Delegates to remove that state from the AMA Federation.

Dr. Peterson stated that the need for all to observe the guidelines and Opinions and Reports of the Judicial Council was well presented and emphasized.

He discussed briefly the reorganization of the Council on Medical Service, particularly the combining of committees to streamline the Council. Dr. Peterson called attention to a report to the House regarding the OEO Program and suggested that we should be sure we are in control of the medical situation in our areas. He also called attention to the Headstart Program and stated that the American Academy of Pediatrics was involved in this project and would help to improve it.

He presented additional positions taken by the House of Delegates as follows: *Rights of Individuals*—Physicians should continue, as they have in the past, to provide medical services for all according to their resources. *Problems with Insurance Programs*—Blue Shield, as well as others, should identify the meaning of any so-called "paid in full" coverage. *Definition of UCR fees* were spelled out and it was recommended that when these terms are used in a contract, they should be specifically defined.

■ The AMA House of Delegates approved a *Uniform Anatomical Gift Act* and urged state medical associations to seek its adoption in their states. Dr. Peterson mentioned a resolution relating to the study by AMA of health care costs. In this respect, the House asked the Board of Trustees to devote sufficient staff, facilities and funds to develop an "effective program for immediate and on-going studies of Health Care Costs."

AMA Position on Osteopathy—The House adopted a Board report stating the following objectives with respect to osteopaths. The AMA seeks to "1. Assure the provision of the best possible health care to the American people; 2. Make available to students and graduates in osteopathy, education of the same high standards as prevail in undergraduate, graduate and continuing educational programs in medicine; 3. Provide avenues whereby qualified osteopaths may be assimilated into the mainstream of medicine."

"To achieve those objectives, the AMA: 1. Recommends that each school of osteopathy improve its teaching program by strengthening its faculty and improving its facilities and resources; 2. Invites schools of osteopathy and their accrediting agencies to consult with the AMA and the Association of American Medical Colleges; 3. That accredited hospitals may accept qualified osteopaths on medical staffs; 4. Suggests that medical specialty boards may accept osteopaths for examination for certification who have completed AMA-approved internships and residency programs and have met other regular requirements; 5. Requests that as specialty boards declare their intent to permit examination of osteopathic graduates, appropriate AMA-approved residency programs be opened to qualified osteopathic graduates; 6. Suggests that AMA-approved internships may be opened to qualified osteopathic graduates; 7. Recommends that determination of qualification be made at the level of the medical staff, the county medical society or the review committees and boards having appropriate jurisdiction; and 8. Suggests that AMA, state and county societies and other affected organizations 'may proceed to make such constitution and bylaw changes as are necessary to implement the foregoing.'"

The AMA House also "suggests that each county and state medical society may accept qualified osteopaths as active members and thereby provide for their membership in the American Medical Association" and instructed the Council on Constitution and Bylaws to prepare "appropriate Bylaw amendments so that qualified Doctors of Osteopathy may be admitted to full active membership" in the AMA.—**Referred to Miscellaneous Affairs Committee.]**

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■ *Paramedical Personnel*—It was recommended that physicians maintain awareness of the need to restrict the practice of medicine to the medical profession which entails knowledge of contracts with hospitals and their personnel. *Nursing schools*—In regard to nurses, the House resolved that "state and county medical societies be encouraged to study the problems relating to nurse education and to seek at the local level all available sources of financing support for hospital nursing schools" and that the AMA "take appropriate action in consultation with professional nurses' associations and the American Hospital Association to encourage increasing enrollment in diploma schools."—**Referred to Medical Education Committee.]**

■ The Missouri resolution regarding minors' consent to treatment for venereal disease and other communicable diseases without parental consent was approved with slight change.

Dr. Neilson reviewed some of Dr. Peterson's remarks and also presented some additional information. He stated that the Missouri Delegation should be complimented upon the work they have done.

On motion of Dr. Wray, duly seconded, the report of the AMA delegates was accepted with commendation.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. Crowe presented the report of the joint committee meeting of the Disaster Medical Care and National Defense Committee and the Trauma Committee which met on Sept. 29, 1968 in Jefferson City and of the subsequent meeting on November 13. Dr. Crowe stated that the Committees discussed the Drunken Driver Law and stated that the present law should be revised from 0.15% blood alcohol to 0.10% blood alcohol as required by the 1966 National Highway Safety Act. He requested the Council to support such legislation and also to support a change in the present law which now reads "milligrams of alcohol per 100 *milligrams*" to read "milligrams of alcohol per 100 *milliliters*."

The Committees recommended that the Council and State Association lend their influence, effort and, if necessary, witnesses to support legislation which will help make the Missouri law comply with the 1966 National Highway Safety Act, specifically that portion applying to ambulance personnel, equipment and operation. The Committee also suggests that certain materials be sent to the membership requesting their support at the local level by contact with legislators emphasizing concern for safety on Missouri highways.

It was pointed out that a Good Samaritan bill which would protect against civil suit "any person rendering aid to the injured, excluding gross negligence, at the scene of a highway accident" probably will be introduced in the coming legislative session and Council support for such legislation was requested.

The joint committees also discussed the lack of communication between emergency vehicles and bases of operations, as well as hospitals, and recommended that the Council approve and provide aid where possible in the formation and implementation of emergency medical services and, in particular, emergency ambulance services in outstate Missouri.

It was noted that the University of Missouri School of Medicine at Columbia is providing ambulance personnel training programs. It also is providing training for Emergency Medical Technicians in an outstate Missouri program as well as community technician training which, with the approval of prospective county medical societies, will provide training for morticians, ambulance operators, firemen or policemen at the local level. It was reported that the joint committees were working with the University of Missouri and the Extension Service to provide a one-day program on emergency medical care to be scheduled in April or May, 1969, the theme of which shall be "Community Action for Emergency Medical Services."

A Sub-Committee headed by Dr. Carroll Hungate has outlined a proposed program on emergency medical care, which was proposed for the MSMA Annual Session in 1970 and which will provide one-half day of information on emergency medical services. In order to provide the mentioned program in 1969, certain funds were requested to provide for a budget allowing for the above program, plus travel expenses for out-of-state and local speakers and a modest honorarium The sum of $800 was requested to help finance this project.

At the 1969 Presidents' Banquet, Mrs. John M. Chenault, President-Elect of the Woman's Auxiliary to the AMA *(center)*, was seated at the head table between MSMA President and Mrs. Doyle C. McCraw *(left)* and Dr. and Mrs. James A. Reid *(right)*. Mrs. Reid is the newly-elected President of the Woman's Auxiliary to the MSMA. *(Mrs. Chenault assumed the President's post of the AMA Woman's Auxiliary for the unexpired term of Mrs. Clifford C. Long who died on April 22.—The Ed.)*

It was suggested by the two committees that, since there is a great deal of overlapping in their endeavors to act upon similar problems, these two committees be dissolved and there be formed a Committee on Emergency Medical Services in their place.

After discussion, on motion of Dr. Stricker, duly seconded, the Report of the Joint Committees on Disaster Medical Care and National Defense and Trauma was accepted with commendation.—**Referred to Resolutions Committee.]**

■ Dr. Neilson presented the report of the meeting of the Committee on Control of Venereal Disease which was held on Oct. 2, 1968 in Jefferson City. He reported a brief history on the planning of an educational course to control venereal disease by way of inclusion in the public school curriculum. Mr. Taylor of the Department of Education described the current *Missouri Guide for Health Education for Grades 9 through 12,* which is now out of print. However, he stated a Supplement is being prepared on *Common Communicable Diseases* for use by instructors teaching health education. This is primarily for the junior high school level, but will be offered to elementary level as needed and suitable, also. Mr. Taylor also reported that three basic programs under consideration by the Missouri Department of Education are (1) Communicable Diseases, (2) Sex and Family Life and (3) Smoking and Narcotics.

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The Committee also considered changes in the present Missouri law to permit minors to be treated for venereal diseases without parental consent. It was noted that 15 states to date have such a law. A poll of the Committee resulted in the majority being in favor of such a law.

Dr. Neilson introduced a resolution to this effect with approval of the MSMA Council at the Interim Session of the AMA in December which was passed with some changes by the AMA House of Delegates giving AMA support to states considering such a law.

After discussion, on motion of Dr. Kerr, duly seconded, the report of the Committee on Control of Venereal Diseases was accepted with commendation and it was agreed that Dr. Neilson's resolution be referred to the Legislative Committee for implementation and that such a bill be introduced in the next session of the Legislature.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. McCraw reported that, at the Council meeting in Springfield, the Missouri State Medical Association agreed to approve the proposal presented by Dr. Koon regarding the early detection of cervical cancer in the office of the family practitioner to be funded by the Missouri Regional Medical Program and to be sponsored by the Department of Community Health and Medical Practice of Missouri University. He reported that an application had been made to MRMP by the Missouri Academy of General Practice and asked Council approval for the change in sponsorship.

On motion of Dr. Miller, the Council approved the change in sponsorship.—**Referred to Constitution and By-Laws Committee.]**

■ Mr. O'Brien reported that there is a definite move to place Blue Cross and Blue Shield under the supervision of the Insurance Department of the State of Missouri and that possible legislation may be introduced to this effect. He requested the opinion of the Council in this regard. After considerable discussion, Dr. Miller suggested that information on this matter be sent to the Legislative Committee for consideration so that proper steps may be taken relative to this problem.—**Referred to Miscellaneous Affairs Committee.]**

The Council met in Executive Session on Sunday morning to discuss further a few more budget items for 1969. The following members were appointed to the Finance Committee: Drs. Max S. Franklin, St. Louis, Chairman; Doyle C. McCraw, Bolivar; and Gerald L. Miller, Kansas City.

Dr. Kerr called attention to a request from a St. Louis hospital to publish an ad in Missouri Medicine seeking physicians for emergency room service on a salaried basis. After discussion, on motion of Dr. Kerr, duly seconded, it was agreed to accept this particular ad for publication in Missouri Medicine, since the hospital staff had been aware of it and had approved it.

On motion of Dr. Wray, duly seconded, it was agreed that, in the future, written permission should be obtained by the Editor of the Missouri State Medical Association Journal from a hospital staff before any similar ads be accepted.

After further discussion regarding the problem of emergency care and emergency rooms in hospitals and the difficulty in staffing, it was agreed, on motion of Dr. Cope, duly seconded, that the entire matter of emergency room care in hospitals, in view of the changing pattern in medical practice, be referred to the Committee on Medical Education and Hospitals for study and recommendations.

■ Dr. Powell presented a resolution regarding Establishing a New Level of Medical Practitioner to the Council for approval, copies of which were distributed. The resolution follows:

> Whereas, There is a grave awareness in medical circles for physicians' services and their increased effectiveness has raised the longevity and well being to the level causing more people to need their services, and
>
> Whereas, There is an ever-growing public concern and discussion on the subject; and
>
> Whereas, The Federal Government can provide us no more qualified physicians than there are physicians available, but they will provide some form of health care, therefore be it
>
> *Resolved*, That MSMA endeavor to establish a new level of medical practitioner, licensed under the Board of Healing Arts, in accordance with the laws of the State of Missouri, and be it further
>
> *Resolved*, That utilizing our existing facilities a training program be created to establish the degree and title of practitioner of medicine, and be it further
>
> *Resolved*, That this medical practitioner serve only under the direct supervision of a licensed physician and the State Board of Healing Arts of Missouri, and be it further
>
> *Resolved*, That the MSMA Council appoint an Ad Hoc Committee to study the above resolution.

The resolution was discussed by several of the Councilors and it was brought out that this proposition should be studied carefully because of far-reaching possibilities, such as licensure problems. Dr. McCraw stated that he was in favor of experimenting with the proposal, that there was a great deal of thought about shortening the overall medical education program and that the medical profession should be open-minded about this idea and really study it.

Dr. Kerr questioned whether or not this should be presented to the House of Delegates for study rather than the Council taking on this responsibility. Dr. Fisher pointed out that the Council could appoint an Ad Hoc Committee to study this problem. If, after study, it then merits being brought to the House of Delegates, such can be done.

The resolution presented by Dr. Powell was approved on motion of Dr. Cope, duly seconded.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. Cope again brought up the situation regarding Form SB-811, which is still being sent by St. Louis Blue Cross requesting information which is considered privileged information. Copies of a letter which was approved by the Council at its meeting in September, 1968 and forwarded to St. Louis Blue Cross, and the reply received from St. Louis Blue Cross were distributed for information. It was decided that another letter be formulated to send to St. Louis Blue Cross. Dr. Cope, with the assistance of legal counsel, composed the letter to be sent. On motion of Dr. Miller, duly seconded, the letter to be sent was approved.

Mr. Fox presented a brief report of the minutes of the meeting of the Committee on Rural Medical Service for Dr. Worley, the Chairman, who could not be present. He stated that the Committee met on May 16, 1969 and reviewed the action taken by the 1967 Rural Medical Service Committee regarding first aid training programs to be offered at the local county society level. A first aid training program was approved in principle by the Council and adopted by the 1968 House of Delegates. He reported that the program, which includes first aid training, is presently being offered in various schools throughout the state of Missouri. The material includes teaching aids, films, visual aids, etc. The course requires a minimum of from 11 to 12 classroom hours.

Dr. Frank Mitchell of the Department of Surgery, University of Missouri, reported on a recent grant made available to the Medical Center for training ambulance personnel and study of emergency services. Mr. Fox reported that there was a proposed bill being considered for introduction in the next General Assembly regarding the requirements for emergency ambulance equipment. He stated that a number of sources who have been providing this service would not be able to continue because of the difficulty of meeting these requirements.

Dr. Mayer reported that the University of Missouri has developed a program for providing training and assistance to the best of their ability in regard to emergency ambulance services for any group in rural Missouri.

The Committee recommended for Council approval that the MSMA membership encourage and support this Emergency Medical Service Training program at the local county society level and, where feasible, assist in the implementation of this program.

After further discussion, on motion of Dr. Miller, duly seconded, the report of the Rural Medical Service Committee was approved and referred to the Legislative Committee and it was decided that the Executive Office watch this proposed legislation carefully.—**Referred to Resolutions Committee.]**

Dr. Fisher expressed to Mr. Lemoine Skinner regret that the Council had decided not to continue to retain Mr. Skinner as Public Relations Consultant and thanked him for his many services during the past years. The Council expressed the hope that Mr. Skinner, because of his vast knowledge of medical matters, would be willing to help the Association in matters of importance when called upon on a "fee for service basis." Mr. Skinner agreed that he would be happy to be of service when needed.

Discussion followed regarding the possibility of some sort of indoctrination of new members, or new physicians locating in Missouri. It was suggested that a Code of Ethics or Guidelines should be prepared to be sent to new members to stimulate interest in the local societies and MSMA. It was suggested that such material could be studied by the Public Service Committee. On motion of Dr. Wray, duly seconded, it was agreed that a Code of Ethics or Guidelines be developed or secured by the Public Service Committee for distribution to young physicians or new physicians locating in Missouri and that such be presented to the Council with recommendations for Council review and approval.

■ Dr. Yore presented an up-to-date resume of the 1969 Annual Session program and stated that a preliminary program would be published in the January, 1969 issue of MISSOURI MEDICINE. He noted that those responsible for the various portions of the program had done an excellent job and, even though not all of the speakers have been fully confirmed, the program is practically complete.

He also stated he hoped that the Council would consider the possibility of holding the next annual session to be held in St. Louis at the River Front Inn, which has new facilities and great possibilities.

Dr. Gunn moved that Dr. Yore's report be accepted. The motion was duly seconded and carried.—**Referred to Medical Education Committee.]**

■ Mr. Fox presented the minutes of the meeting of the Committee on Utilization Review in the absence of Dr. Blaine Hibbard, the Chairman. Mr. Fox stated that the meeting was called to study problems and developments to date relating to Utilization Review Committees in hospitals throughout Missouri. The report noted that it is difficult to identify the responsible physician when the patient is transferred to another service or is not transferred, but a different service performs the greater part of medical or surgical care. It was suggested that hospitals across the state be surveyed regarding utilization reviews, using the outline which was distributed to the Council.

Discussion followed regarding the various items included in the report. On motion of Dr. Miller, duly seconded, the minutes of the meeting of the Utilization Review Committee were approved, including implementation of the mailing of the questionnaire to the various hospitals over the state.—**Referred to Resolutions Committee.]**

■ Mr. McIntyre presented a brief report of the Committee on Medical Education and Hospitals in the absence of Dr. Ralph Hall who was unable to attend. In the discussion that followed, there was some controversy over some of the statements in the report, and it was decided, on motion of Dr. Cope, duly seconded, that the report be tabled until Dr. Hall could present the report at the next Council meeting in February.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. William C. Allen stated that the Missouri Regional Medical Program presented a one-day program for the MRMP Advisory Council as well as for the Medical Advisory Council of the University of Missouri and stated that the MRMP would be happy to set up such a program for the Council of MSMA, if so desired. He stated that it could be a one-half day or a one-day program and would describe how these programs relate over the state, giving a presentation and discussion of them. He stated that 26 projects are in operation in the state. Dr. Yore stated that MRMP and the Bi-State Regional Medical Program are cooperating to put on a part of the MSMA Annual Session program.—**Referred to Constitution and By-Laws Committee.]**

The Councilors reported on various items of interest in their particular districts. Dr. Cope suggested that the Council set aside an earlier time on the agenda for Councilors to introduce and discuss important items which they feel merit the Council's attention.

On motion of Dr. Wray, duly seconded, it was agreed that the Executive Office purchase a tape recorder for use at Council meetings. Motion carried.

It originally was reported that the next Council meeting would be held on Feb. 8-9, 1969 at the Ramada Inn in Jefferson City. However, since the Council meeting, these dates have been changed to Feb. 1-2, 1969 at the Ramada Inn in Jefferson City.

Special Meeting—Jan. 11, 1969

Joseph L. Fisher, M.D., St. Joseph, Chairman, called the meeting to order. Those present were Drs. Fisher; Lysle M. Bach, Hannibal; James C. Cope, Columbia; Rolla B. Wray, Nevada; Gerald L. Miller, Kansas City; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; David N. Kerr, St. Louis; Doyle C. McCraw, Bolivar; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; Hector W. Benoit, Kansas City; J. L. Washburn, Versailles; Arthur W. Neilson, St. Louis; Robert L. Mayer, University City; James C. Sisk, Clayton; John Buesseler, Columbia; Messrs. Ray McIntyre,

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Royal Cooper, Bob Carroll, Jefferson City; Hollister S. Smith, St. Louis; Allen D. Smith, Kansas City.

Dr. Fisher called the meeting to order and announced that he had called the meeting to consider the action taken by the American Medical Association House of Delegates at the Clinical Session in Miami Beach last December on studying health care costs as they might relate to the MSMA proposed study.

He asked Dr. Benoit to discuss the AMA House action as well as to give the background of plans for a health care cost study which has been under discussion by the Missouri State Medical Association for almost a year.

Dr. Benoit said that the Wisconsin Delegation at the recent AMA Miami Beach session had introduced a Resolution (No. 39) calling for a study of health care costs by the AMA. Reference Committee F proposed a substitute resolution for the Wisconsin resolution and the substitute was adopted by the AMA House of Delegates. The substitute resolution states:

> *Resolved,* That the House of Delegates recognize that the responsibility of physicians and of the American Medical Association to help in controlling the increasing cost of health care requires accurate, reliable and current data on these costs for effective action; and be it further
>
> *Resolved,* That the Board of Trustees be requested to expedite and expand existing programs and, where necessary, develop new programs for the following purposes:
>
> (1) Analysis of health care costs and expenditure data developed and reported by other sources;
> (2) Definitions, reports and explanations of the several major categories of health care expenditures; and
> (3) Dissemination of the data, findings and conclusions of such studies to constituent medical associations, component medical societies, news media and state and federal governmental authorities, so that the many components of health care costs and expenditures may be placed in their proper perspective; and be it further
>
> *Resolved,* That the Board of Trustees consider this a mandate rather than an option and that it devote sufficient staff, facilities, and funds to develop an effective program for immediate and on-going studies of health care costs; and be it further
>
> *Resolved,* That the Board of Trustees report on the status of its program to the House of Delegates at the Annual Session in July, 1969.

Considerable discussion followed concerning the ways in which the AMA might implement the mandate. Much of the discussion centered on the way such a study would be financed and whether or not component medical associations would share in the cost.

After the discussion, the following motion by Dr. Benoit, duly seconded, was unanimously approved.

> The Council of the Missouri State Medical Association wishes to urge that the American Medical Association implement the mandate of Substitute Resolution 39 (C-68) as quickly as possible. It further wishes to reaffirm the action taken by the Missouri State Medical Association House of Delegates in March of 1968 on a proposed study of Health Care Costs which was as follows:
>
> 1. We approve the proposed study as outlined by the Research Center (University of Missouri) because we think it is needed and it should be done as quickly as possible.
> 2. We think it should be presented to the AMA for implementation and funding because it involves every physician in America.
> 3. The physicians in Missouri fully support the proposed study and offer their cooperation in using the State of Missouri as a sampling area.
> 4. If another sample area or research organization is preferred by the AMA, this is agreeable.
> 5. The cooperation of the Pharmaceutical Industry, the Hospital Association, the Health Insurance Industry, the Dental Association and the Osteopathic Association in the test area should be sought to give depth and breadth to the study.

—Referred to Reports of Officers Committee.]

Meeting of Feb. 1-2, 1969

Joseph L. Fisher, M.D., St. Joseph, Chairman, called the meeting to order. Those attending the meeting were Drs. Fisher; Walter Gunn, St. Louis; Robert A. Mayer, Clayton; Rolla B. Wray, Nevada; Gerald L. Miller, Kansas City; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; W. D. English, Cardwell; David N. Kerr, St. Louis; Doyle C. McCraw, Bolivar; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; Paul F. Max, St. Louis; Hector W. Benoit, Kansas City; Stanley S. Peterson, Springfield; J. Loren Washburn, Versailles; William D. Mayer, Columbia; William C. Allen, Columbia; Ralph W. Hall, Kansas City; Herbert C. Wiegand, St. Louis; Truman B. Schertz, North Kansas City; James N. Haddock, St. Louis; George A. Ulett, St. Louis; James W. Willoughby, Kansas City; Messrs. John W. Noble, Kennett; James W. Foristel, Washington, D. C.; Hollister Smith, St. Louis; Edgar Mothershead, Clayton; Gary L. Schnedler, Springfield; Allen D. Smith, Kansas City; Tom R. O'Brien, St. Louis; Tom P. Fox, Bob Carroll, Royal Cooper and Ray McIntyre, Jefferson City.

The Chairman opened the meeting by calling for approval of the minutes of the Council meeting of Dec. 14, 15, 1968. An error was noted on page 5, paragraph 2, line 2, where the word "June" should be changed to "July." On motion of Dr. McCraw, duly seconded, the minutes were approved as corrected.

■ A question arose regarding the appointment of an Ad Hoc Committee to study the Greene County proposal to establish a new level of medical practitioner and whether or not this should be done by the Council or presented first to the House of Delegates. After discussion, it was agreed that the Chairman of the Council would appoint this Ad Hoc Committee.—**Referred to Miscellaneous Affairs Committee.]**

Dr. Fisher then called for approval of the minutes of the Special Council meeting which was held on Jan. 11, 1969 to consider the action taken by the AMA House of Delegates at the Clinical Session in Miami last December on studying health care costs as they might be related to the MSMA proposed study. On motion of Dr. Gunn, duly seconded, the minutes of the Special Council meeting were approved.

■ The Chairman reported that the letter approved at the Dec. 14, 15, 1968 Council meeting was sent to Mr. Rexford, President, St. Louis Blue Cross, disapproving the continuation of sending out Form SB-811 requesting information which is considered privileged information. He stated that a reply had been received as of January 21, as follows:

"Thank you for your further comments relative to Form SB-811 which is used in connection with the Medicare program.

"We note that you indicate you have no objection to the form per se and want to cooperate with Blue Cross in its position as fiscal intermediary, however, you are concerned about the release of information. This is provided for on the Medicare claim form when each patient signs the following authorization contained in the form:

> 'Patient's Certification, Authorization to Release Information, and Payment Request. I certify that the information given by me in applying for payment under Title XVIII of the Social Security Act is correct. I authorize any holder of medical or other information about me to release to the Social Security Administration or its intermediaries or carriers any

information needed for this or a related medicare claim I request that payment of authorized benefits be made on my behalf.'

"As was indicated in our letter of Oct. 2, 1968, the Social Security Administration requires that the fiscal intermediary determine that the level of care being rendered qualifies for Medicare benefits. This is questioned only in rare instances—in fact, less than one-half of 1% of the Medicare cases. And in these instances, neither the quality of care nor the need for hospitalization is being questioned. Instead, the purpose of the requirement is to determine whether the level of care has become custodial in nature, because if the care is custodial, Medicare benefits may not be allowed although the patient may continue to be hospitalized.

"Instructions contained in the fiscal intermediary manual issued by the Social Security Administration indicate that in determining level of care eligibility for Medicare benefits, the following type of information should be obtained by the fiscal intermediary—physician's orders, patient's nursing care plan, progress notes, physician's recertification statements and the Utilization Review Committee decision. A copy of this section of the Social Security Manual is enclosed and it will be noted that the decision of the Utilization Review Committee is one of the items requested. Your letter mentioned the Claim Review Committee. If this Committee is performing the review function, the decision of this Committee would then be appropriate.

"We were glad to hear from you again and sincerely hope that we have explained our responsibility in this phase of the Medicare program. Your cooperation in helping us meet this responsibility will be greatly appreciated."—**Referred to Resolutions Committee.**]

Mr. McIntyre mentioned the death of Dr. O. B. Barger of Harrisonville in December and, also, the recent deaths of Dr. and Mrs. Chester Clark of Trenton, who were killed in a highway accident on their way home from a meeting of the MSMA Medical Economics Committee.

He presented a request from the Conference of Presidents and Other Officers of State Medical Associations for continuation of membership in that organization with annual dues of $75.00 per year. On motion, duly seconded, it was agreed to continue MSMA membership in this organization.

Dr. Fisher reported the establishment of a Memorial Fund for the family of Dr. and Mrs. Chester Clark and stated that if anyone were interested, contributions may be sent to the Chester Clark Memorial Fund, c/o Trenton Trust Company, Trenton, Mo.

Dr. Fisher recommended that the Council appoint the Editor of Missouri Medicine at this time. On motion, duly seconded, Dr. Joseph V. Finnegan, St. Louis, was reappointed Editor of Missouri Medicine for another year. On motion, duly seconded, it was agreed that a note of appreciation be sent to Dr. Finnegan for his excellent service as Editor of Missouri Medicine.

■ Dr. Ralph Hall, Chairman of the Committee on Medical Education and Hospitals, presented the report of the Committee which met on Oct. 7, 1968. The Committee discussed the MSMA resolution regarding the need to increase the number of qualified physicians in Missouri. He stated that the Committee was informed that copies of the resolution would be sent to the members of the Missouri 75th General Assembly.

The Committee also discussed the MSMA resolution regarding the establishment of a Medical School in Kansas City and the Committee approved a motion recommending that the resolves in the resolution be carried out.

Dr. Hall reported that the Committee discussed the need for the State Association to take a look at the entire matter of medical school financing in Missouri with the following motion approved by the Committee: That the Council of the MSMA be asked to appoint a group to explore the funding of Missouri Medical Education, both private and public.

It was pointed out by Dr. McAlhany that the Commission on Higher Education has studied this problem, and facts and figures are available through the office of the Commission. It was suggested that a copy of this material be obtained and made available to the Committee on Medical Education and Hospitals.

After further discussion, on motion, duly seconded, it was agreed that this portion of the report be referred back to the Committee on Medical Education and Hospitals for further study and exploration of existing figures which are now available through the office of the Commission on Higher Education.

The Committee also discussed the beginning of internships prior to graduation. It was pointed out that a number of states allow medical students, in the last part of their senior year, to enter internships prior to graduation, and it was thought that Missouri might be losing some physicians because this was not being done in Missouri. It was noted that a bill had been introduced in the 1967 session of the Legislature which would have necessitated a year of internship before a medical graduate could get his Missouri license. However, the bill did not get out of committee, and it was felt the measure was not needed.

After discussion, on motion, duly seconded, the latter two items of the report were referred to the Legislative Committee for further consideration. On motion, duly seconded, the Report of the Committee on Medical Education and Hospitals was accepted.

Dr. Kerr reported on a meeting of the Executive Committee of the Council with the Executive Committee of the Osteopathic Association as a Liaison Committee between the two groups to explore the possibility of Doctors of Osteopathy securing graduate training in M.D.-approved hospitals in accordance with a resolution passed at the last session of the MSMA House of Delegates. The Osteopathic Committee reported that they were not in a position at this time to discuss the MSMA resolution.

Dr. Kerr stated that MSMA had had a Liaison Committee with the Osteopathic Association at one time, but no meetings had been held in the last several years. It was his suggestion that it would be better to appoint a five-man Liaison Committee from each organization to meet and discuss matters of mutual interest, rather than have the Executive Committees take this added responsibility. He stated that the Osteopathic group was in favor of this idea and that liaison between the two groups is definitely in order.—**Referred to Miscellaneous Affairs Committee.**]

Dr. Franklin presented a brief financial report of the Association as of Jan. 1, 1969. He stated that the financial result of the activities of the Association for the year 1968 was in excess of income over expenses of $9,956.

He said that the 1968 Audit of the Association's accounts will be published in the March 1969 issue of

Missouri Medicine and also will be included in the Delegate's Handbook for the 1969 Annual Session. On motion, duly seconded, the Treasurer's Report was approved.

Mr. James W. Foristel of the AMA Washington office gave a brief rundown on some legislative activities at the national level, but stated that it was too early to make any predictions.

He said that the AMA is undergoing reorganization at this time, with the Washington Office almost completely reorganized and functioning under the AMA Division of Public Affairs. Mr. Foristel serves in 12 states, including Wisconsin, a new one for him, and Missouri.

He stated that the Washington legislative program for the year to date includes a review of tax exempt organizations. A hearing is scheduled for February 18, and the AMA had asked to appear and present a statement regarding their tax exempt status. He also said plans include a possible review of Medicare by the Ways and Means Committee. He mentioned possible legislation to be promoted setting up tax credit for the purchase of health insurance. He said that some changes in the membership of the House Ways and Means Committee and the Senate Finance Committee have occurred and such may have a bearing on Health Legislation this year.

Mr. Fox presented a brief report of the Financial standing of the Missouri State Medical Foundation as of Dec. 30, 1968. He stated that the balance on hand Jan. 1, 1968 amounted to $41,986.60. Income during the year including the assessment, contributions, interest, and principal repayments amounted to $39,728.38, making a total of $81,714.98. Loans during the year amounted to $43,964.98. Total loans to date $282,465.10. He also mentioned that the Financial Statement of the MSMF would be included in the March issue of Missouri Medicine and, also, in the Delegate's Handbook for the Annual Session. It also was noted that $2,106.50 was received in voluntary contributions from individual physicians, drug stores, county medical societies, etc. No solicitation letter was sent out this year, but a letter was published in Missouri Medicine requesting donations. After discussion, on motion, the report of the Missouri State Medical Foundation was approved.

■ Dr. Kerr presented the report of the Committee on Interspecialty Medicine which met in Jefferson City on January 19. He stated that the only function of the Committee to date has been in serving as a part of the Medical Economics Contract Committee concerning Medicaid.

Attention was called to the fact that the Long Range Planning Committee had pointed up the need for activating the Interspecialty Medicine Committee for a more active role in Association affairs. Copies of a proposed restructure of the present MSMA committee set-up were distributed to the committee members with a request that the members discuss these proposed changes with their specialty groups and be prepared at the next committee meeting to suggest whether or not certain committees might well be combined or eliminated. Dr. Kerr also requested that Dr. Charles Gulick of St. Louis assume chairmanship of the Interspecialty Medicine Committee. Dr. Gulick called for any additional matters for discussion. Points brought forth for discussion included (1) Specialty groups should suggest members for the Interspecialty Committee including one or more alternates, (2) More specialty groups should meet during the MSMA annual meeting and (3) The committee should meet again, if possible, before the meeting of the MSMA Council in March and make recommendations to the Council.

After discussion, on motion, duly seconded, the report of the Interspecialty Committee was approved.—**Referred to Constitution and Bylaws Committee.]**

■ Dr. Fisher reported that there is a lack of information for lay consumption from the AMA in the news media and, if this could be changed, it might be helpful in improving the image of the physician, as well as shaping public opinion.

Dr. Gunn reported that he had received a complaint from a St. Louis Urologist concerning Medicaid not allowing the usual, reasonable and customary fees. It was suggested that such complaints be made to the Urological Society Review Committee for the Division of Welfare which was established to work with the Division of Welfare on such matters.

Dr. Gunn also reported on an unusual practice by a pharmaceutical company which had come to his attention. Discussion followed concerning what action should be taken in this regard. It was suggested that the matter be deferred until Sunday so that this could be discussed with legal counsel.

Dr. Mayer reported that St. Louis County held its annual installation of officers on Saturday night, January 25, and among guests attending were Dr. and Mrs. Kerr and Mr. and Mrs. McIntyre. He also stated that Dr. Rouse of the AMA will address their next Council meeting.

Dr. Wray reported on a joint meeting of county medical societies he attended in Marshall. He said special entertainment was provided for the ladies, which resulted in a better turnout of the members and their wives than usual.

Dr. Stricker reported attending a fine meeting of the Mid-Missouri Medical Society in conjunction with personnel from Fort Leonard Wood. He also reported that two new physicians had located in Rolla in the last six months, one an M.D. and the other an Osteopath.—**Referred to Resolutions Committee.]**

■ Dr. Kerr reported that since the action of the AMA House of Delegates in December regarding internships and residencies for osteopathic physicians in AMA approved hospitals, he had been contacted by Homer Phillips Hospital in St. Louis regarding an application they had received from an osteopath for internship. Dr. Kerr stated that the Council on Medical Education of the AMA was now contacting hospitals over the United States concerning this matter. He also stated that some applications from osteopathic physicians for medical society membership had been received. To effect such membership, the MSMA bylaws would have to be changed to include osteopathic physicians. Following this, county societies, by similar change of their bylaws, could then consider osteopathic physicians for membership.

It was pointed out that the AMA House of Delegates in December took action suggesting that state and county medical societies consider steps to open up membership to qualified osteopathic physicians. After considerable discussion, on motion, duly seconded, it was agreed that the Council recommend to the House of Delegates that the Bylaws of the Missouri State Medical Association be amended to permit active membership in the Association for duly Missouri licensed physicians (M.D. and D.O.) with qualifications for active membership determined by the local medical societies as at present, and that the Council refer this matter to the Committee on Constitution and Bylaws for the proper bylaw changes. These suggested bylaw changes are to be presented to the Council at its next meeting for Council recommendation to the House of Delegates in March, 1969.

Dr. Matthews reported the Legislative Matters Committee met on Friday evening, January 31, with representatives of the Osteopathic Association and the State Board of Healing Arts to discuss various legislative bills of interest to medicine in the 75th Missouri General Assembly.

He stated that a uniform anatomical gift act will be introduced shortly and the Committee recommends support of the bill when it is introduced.

S.B. 146, H.B. 314—Both call for a Medical Examiner System to replace the present coroner system. The Committee recommends support of this legislation.

H.B. 40—Battered Child Bill. This bill makes it mandatory for physicians to report suspected cases of child abuse, but such reports are to be made to county welfare offices. The Committee feels this bill should be broadened so that nurses, school teachers and others who come in contact with children also would have the responsibility of reporting child abuse. With a broader base, the Committee recommends support.

S.B. 69—Allows podiatrists to use narcotics in the treatment of foot ailments. The Committee recommends no position on this bill.

H.B. 39—Provides for registration of physical therapists under the Board of Healing Arts. With two or three amendments to be offered and, if adopted, the Committee recommends support.

S.B. 77—Provides for registration of Sanitarians within the Division of Health. The Committee recommends no position on this bill.

H.B. 84—Would require that certain health insurance firms not discriminate against chiropractic, podiatrist and optometrist services. Insurance people are studying this bill.

H.B. 142—Provides for registration of psychologists under their own board without adequate definition of their services. It is recommended that if registered, they come under the Board of Healing Arts, and for any patient care, they work under the direction of a physician.

H.B. 85—Chiropractic Bill. This bill is designed to greatly expand the present chiropractic practice act. The Committee recommends that this bill be opposed.

H.B. 336—Registration of Naturopaths. The Committee recommends that this bill be opposed.

H.B. 239—Drunken Driver Law would change the present Missouri law to conform with Federal standards. The Committee recommends support of this bill.

The Committee is taking steps to have introduced a bill to consider blood for transfusions as a service and not a commodity. On motion of Dr. Matthews, duly seconded, the Legislative Report was approved.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. Wiegand reviewed the minutes of the meeting of the Medical Economics Contract Committee which was held in Jefferson City on January 19, with representatives of General American Life Insurance Company and St. Louis Blue Shield, to discuss mutual problems. Mr. Borman of General American Life Insurance Co. listed four general areas for discussion:

(1) The need to arrive at a reasonable charge for intramuscular injections by a physician exclusive of the cost of the injected drug. He stated that such charges have ranged from nothing to $15 and requested opinion as to a reasonable fee for such service.

(2) Itemizing charges for mileage. He stated that there is no pattern for such charges. Division of Welfare's usual payment under Medicaid was no allowance for first ten miles (one way), then $1.00 per mile (one way) more than ten miles.

(3) What is a reasonable charge for drawing and mailing of blood specimens by a doctor's office to independent laboratories?

(4) Social Security Administration is relaxing some of its itemization requirements for a number of services constituting a regular treatment procedure and when a physician desires will allow a "flat charge." Mr. Borman requested the committee's opinion regarding making recommendations on how General American Life might secure agreement from physicians and specialty groups to implement a "flat charge" for regular treatment procedure.

Dr. Wiegand reported that the Committee unanimously approved that Committee members recommend to their own groups and to the State Association that these organizations consider establishing a policy under which charges for paramedical services such as injections, blood drawing, etc., be based upon cost accounting not including professional services. Professional services of the physician will be charged separately. This agreement would cover both points (1) and (3) made by Mr. Borman.

Mr. Borman reported that General American pays injectables up to $3.00 without question and only seeks additional information on charges above that amount.

Item 2. The Committee recommends that payment for mileage in patient care other than to a hospital be: "no charge for the first ten miles (one way), and $1.00 per mile (one way) on all subsequent miles (one way)."

Discussion followed on Item 4, concerning a "flat charge" for certain services constituting regular treatment procedure. The Committee unanimously approved that the Committee go on record as having no objection to General American sending out a statement to physicians pointing out that the physicians may submit "flat charges" instead of itemized bills for certain services.

Dr. Wiegand reported that Mr. Davis of St. Louis Blue Shield appeared before the Committee and stated that Blue Shield is going into a program of usual, customary and reasonable fees for a number of full pay programs and needed help in the reviewing of questionable claims. It was pointed out that review committees already have been set up by each practice group for Title XIX. However, it was noted that Title XIX is statewide, whereas Blue Shield covers only part of the state. The Committee approved a motion that any further discussion on the subject relating to a St. Louis Blue Shield review committee or committees be tabled until after implementation by Blue Shield of a more democratic representation of component medical societies on the Missouri Medical Service, Inc. (Blue Shield) voting board, presumably at the June meeting.

After discussion, on motion, duly seconded, the report of the Medical Economics Contract Committee was approved.—**Referred to Resolutions Committee.]**

■ Dr. Haddock presented the report of the Mental Health Committee which met in Jefferson City on Jan. 23, 1969. He indicated that the Committee discussed House Bills 65, 70, 77 and 43 in the Missouri Legislature, along with another bill to be introduced allowing counties to tax themselves to establish community mental health or retardation centers. House Bill 142, Psychologist Registration, also was discussed. The Committee went on record as recommending that if psychologists are to be licensed, that such licensing be under the State Board of Registration for the Healing Arts.

Dr. Haddock then called on Dr. Ulett to report on the Doctors of Osteopathy Residency Program in Psychiatry in the Division of Mental Diseases. Dr. Ulett reported that the psychiatric medical manpower shortage in the state was the main problem. He indicated that overcrowding in the State Hospitals has been reduced, yet the workload has increased. Dr. Ulett indicated that experience with Doctors of Osteopathy in the training program at Nevada has been very good, but he would like to rotate them to St. Louis State Hospital for additional training. He would like to begin this rotation in July, 1969. Much discussion followed regarding whether or not these physicians would be eligible for the AOA Boards of Psychiatry. Dr. Ulett indicated that the St. Louis training program had been inspected by the AOA Board inspection team, but he could not, in fact, say that these physicians would be certified by the OA Board. Of the 120 psychiatrists in training in the Division of Mental Diseases' program, only 11 are D.O.'s. Eight percent of the M.D.'s are ECFMG.

The Committee approved the following motion, "The Mental Health Committee approves the Division of Mental Diseases training program for Doctor of Osteopathy residents in psychiatry currently at Nevada State Hospital. We strongly recommend the improvement of the level of training in this program through utilization of the AMA Approved Psychiatry Residency Training Programs associated with other institutions of the Missouri Division of Mental Diseases and expecially that of the University of Missouri Department of Psychiatry located at the Missouri Institute of Psychiatry on the grounds of St. Louis State Hospital. We recommend that the Psychiatric Residency Training Program for Doctors of Osteopathy be conducted in an integrated fashion (both for teaching and patient care), with the AMA Approved Psychiatric Residency Training Program at this Department of Psychiatry in St. Louis."

On motion, duly seconded, the report of the Committee on Mental Health was approved.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. Truman Schertz presented a letter written to the Council by Dr. Pernoud, Chairman of the Eye Health Committee. The Eye Health Committee indicated their opposition to a proposed School of Optometry at Missouri University. The probable initiation of the idea of a School of Optometry would be that a shortage of Ophthalmologists exists in rural areas of Missouri. The Committee feels that the solution to this problem is an inreased number of physicians, including Ophthalmologists, who can be trained and stimulated to locate in prescribed rural areas. The best way of achieving this would be to increase general enrollment in all the approved medical schools in the state. The Committee further suggested that this might be financed by federal or state government, or privately, through minimum interest loans with a contract so that an individual receiving such aid would be required to spend a certain number of years in an approved rural area. Many states have done this successfully.

Another solution the Committee on Eye Health recommends to alleviate the shortage of Ophthalmologists is "A Proposal for Career-Ladder Training of Ocular Allied Health Personnel." (12-page description of this on file in MSMA Headquarters Office.)

Under National P.L. 89-751 financing is made available for training of technicians referred to as allied health personnel. They have programs establishing training programs for dental assistants, dietitians, physical therapists, etc. It is agreed that those physicians who use trained technicians could double the patient care that an ophthalmologist can provide. Dr. Schertz indicated that this had already been started in Kansas City and St. Louis and would be started in Columbia in July at the Medical School.

In summarizing, Dr. Schertz indicated that the main portion of this report was to solicit definite action to strongly oppose any development of a School of Optometry under public funding in the State of Missouri.

Dr. McAlhany stated that the Missouri Optometric Association meets in Springfield in April and they had invited an ophthalmologist to appear on one of their panels. After some discussion, it was decided that this matter should be referred to the Eye Health Committee and that future requests of this type be sent to the MSMA Headquarters Office. On motion, duly seconded, the Eye Health Committee report was approved.

Dr. James Willoughby presented a resolution proposing the establishment of a primary board in allergy by the American Medical Association. The resolution reads as follows:

> Whereas, It is a fact that the practice of allergy is clinically important and encompasses the important fields of internal medicine, pediatrics, dermatology, otolaryngology, immunology as well as the primary field of allergy, and
>
> Whereas, The American Board of Clinical Immunology and Allergy as a duly existing, acting and qualified board and the American Medical Association should approve a primary board in allergy under the supervision of the American Board of Clinical Immunology and Allergy, and
>
> Whereas, Prompt approval of primary board will:
>
> 1. Encourage further development of medical knowledge and maintain higher standards of practice and health care;
> 2. Create incentives to attract increasing numbers of young, capable physicians in the specialty of clinical allergy either on a full time or a part time basis.
> 3. To establish accredited residency training programs in accredited medical schools and hospitals for the purpose of basic fundamentals of immunology and clinical allergy.
> 4. To maintain and provide the highest level of ethics and professional standards in the specialty of allergy.
>
> *Therefore, Be It Resolved,* That the MSMA House of Delegates approves the establishment of such a primary board in allergy and requests its AMA delegates to introduce an appropriate resolution on the floor of the House of Delegates of the American Medical Association.

Dr. Willoughby indicated that, at the present time, there are two routes for board certification for allergists:

(1) Board certification in Internal Medicine with subcertification in allergy or (2) Board certification in Pediatrics with subcertification in allergy. He said that the great majority of certified allergists are pediatricians. He stated that currently there are ten to 12 approved residency training programs in allergy existing in the United States—all are controlled by the Board of Pediatrics or Internal Medicine. The State of Missouri has no allergy training program established in any of the three existing medical schools.

After discussion, Dr. Kerr moved that this resolution be accepted and presented to the House of Delegates for further consideration without recommendation. This resolution is to appear in the Council minutes in the Handbook for the House of Delegates March meeting. The motion was seconded and approved.—**Referred to Medical Education Committee.]**

Mr. McIntyre reported on a portion of the minutes of the Executive Session held on Saturday, December 14. He stated that the Budget Committee presented to the Council a written proposal requesting a raise in Association dues for the year 1970 to be presented to the House of Delegates in 1969. The present active member dues are $52.50 plus a $10.00 foundation assessment. The 1970 annual dues would be raised to $65.00 plus the $10.00 foundation assessment. The Council approved the dues raise recommendation for 1970. It was suggested that the proposal for the dues raise be published in MISSOURI MEDICINE before the next meeting of the House of Delegates on March 20, 1969. It was agreed that the proposal regarding the need for a dues increase be included in the mailing of 1970 dues statements, if passed by the House of Delegates. On motion, duly seconded, it was agreed that the dues increase proposal recommended by the Council be included in the Delegate's Handbook and appear in the March, 1969 issue of MISSOURI MEDICINE (yellow page).

Mr. McIntyre indicated that if the raise in dues is approved by the House of Delegates, it will be necessary to introduce an amendment to the bylaws at the Friday session of the House. He read the suggested word change for the bylaws. Dr. Franklin requested the Council members to urge their delegates to pass this dues raise.

■ Dr. Kerr reported on some of his recent activities as President of the Association. He reported that the Second Annual Conference on Nursing will be held in Chicago on April 11 and 12 and that a request had been received from AMA for a representative of MSMA to attend this conference with expenses being paid by AMA. It was suggested that Dr. John Walters, Chairman of the Committee on Nursing and Paramedical Personnel, be requested to attend this conference.

Dr. Kerr stated that he had received a letter from the AMA asking MSMA to appoint a State Association Committee to handle AMERF or send out a fund solicitation to our membership and that his reply would point out that our Auxiliary is working with AMERF while the MSMA is promoting our Missouri State Medical Foundation.

He indicated that he had been informed of another OEO project coming to St. Louis and his comments regarding this were that since there are already two projects being funded there is some overlapping of the districts and he feels that these matters should be held until some local or metropolitan overseeing agency can be organized to bring them together. The project also indicates that they will employ ten full time internists and he wonders wrere they will obtain these.

Dr. Kerr received a letter from the Bi-State Regional Medical Program, Committee on Continuing Education, asking that the MSMA suggest a member to be on that Committee. He indicated that he is on their advisory board and, therefore, could serve on the Committee on Continuing Education, unless the Council would like to propose someone else.

Dr. Kerr brought up the matter of promoting local chapters of SAMA at the three state medical schools. He suggested that we invite to the Annual MSMA 1969 Banquet the presidents of each of the four medical classes at the three medical schools, the local president of SAMA at Missouri University and the National SAMA president and their wives as guests of the MSMA. On motion, duly seconded, this was approved.—**Referred to Constitution and Bylaws Committee.]**

■ The Chairman then asked Dr. Gunn what decision had been made pertaining to the Pharmaceutical Company discussed on the previous day. Dr. Gunn indicated that it was agreed that the best way to handle this matter was to write a letter to the MSMA Executive Secretary, who could present this to the Missouri Pharmaceutical Association and that he (Dr. Gunn) also would send a copy to the St. Louis Medical Society for whatever action they may wish to take.—**Referred to Resolutions Committee.]**

■ Dr. Max then discussed the reference committees for the 1969 MSMA Annual Session and indicated that he would welcome any suggestions from the Council for appointments to these committees.

Dr. Miller urged that all Councilors give their wholehearted support to the proposal of a medical school in Kansas City and appealed to them to carry out the wishes of the House of Delegates in regard to this matter.

Dr. Fisher indicated that he had been given suggested names of physicians to serve on an Ad Hoc Committee to study a new level of medical practitioner. The following Committee was appointed: Drs. Joseph C. Edwards, St. Louis, Chairman; Jack Colwill, Columbia; Edwin M. Powell, Springfield; Charles B. Ladd, St. Louis; Paul R. Young, Kansas City; Elvin D. Imes, Maryville; and Melvin C. Kasten, Cape Girardeau.

Dr. Fisher announced that the next Council meeting will be held on Wednesday evening, March 19, 1969 at the Chase Hotel in St. Louis.

On motion of Dr. Benoit, duly seconded, meeting adjourned at 12:15 P.M.—**Referred to Miscellaneous Affairs Committee.]**

Council Supplementary Report

Dr. Fisher then presented a supplementary report on the Council meeting of Wednesday evening, March 19, 1969 and, again, for a special meeting on Thursday, March 20, prior to the opening of the Annual Session. He reported as follows:

"The Chairman asked for approval of the Council minutes of February 1-2, as published in the Delegates Handbook. On motion of Dr. Wray, duly seconded, the minutes were approved.

"Dr. Fisher called attention to the resolution presented by Dr. Willoughby regarding the establishment of a Board of Allergy which had been presented to the Council and which is contained in the February 1-2 Council minutes on page 10 in the Delegates' Handbook. In February, the resolution was accepted by the Council for recommendation to the House of Delegates without comment. In a later communication, Dr. Willoughby requested the Council to rescind this referral to the floor of the House. After discussion, on motion of Dr. Gunn, duly seconded, it was agreed that this resolution not be considered by a Reference Committee of the House at this time. (This originally had been referred to the Reference Committee on Medical Education and Public Welfare.)

(The Speaker stated that since Dr. Willoughby had asked that the resolution not be considered, there will be no action taken on this by the Committee on Medical Education at this time.)

"Mr. Raymond McIntyre reported that the Association has blanket accident insurance coverage on members of the Council, officers, committee members and similar representatives of the Woman's Auxiliary while away from home on official business for their Associations. He reported that Dr. and Mrs. Chester Clark were killed in a traffic accident on their way home from a Committee meeting and that the Insurance Company of North America had sent a check in the amount of $25,000 to the estate of Dr. Chester Clark.

"He also reported on the death of Miss Helen Penn on February 15, 1969. Miss Penn had been a long and faithful employee of the Association for 35 years.

"Mr. McIntyre also reported the recent death of Dr. Edwin C. Ernst, Sr. Dr. Ernst, a well known radiologist, was President of the 50 Year Club.

"Mr. McIntyre also reported that Robert W. Kelley of St. Louis had been appointed by Governor Warren E. Hearnes to replace Dr. Thompson E. Potter on the Governor's Advisory Committee on Comprehensive Health Planning. Dr. Potter died while touring Spain last summer. This will automatically make Dr. Kelley Chairman of the MSMA Committee on Comprehensive Health Planning.

"Dr. Howard J. McAlhany, Councilor of the Eighth District, reported that he had received a request from two physicians from Dade County for permission for their county to become hyphenated with the Dallas-Hickory-Polk County Medical Society instead of the Barton-Dade County Medical Society. After discussion, on motion of Dr. Gunn, the request for Dade County to become hyphenated with Dallas-Hickory-Polk County was approved.

"Mr. McIntyre indicated that the Mercantile Trust Company, managing agent for our investment account, had requested that the signature of at least two members of the Association, preferably the President, Secretary, Treasurer or Executive Secretary, be authorized for the transfer of monies or the sale of stocks and bonds. On motion of Dr. Kerr, duly seconded, it was agreed that any two signatures of the above-mentioned officers be approved.

(The Speaker referred this portion of the report to the Reference Committee on Reports of Officers.)

"Dr. Charles R. Gulick reported that the Interspecialty Committee had met in the Coach Room of the Chase Hotel on Wednesday, March 19 at 3 PM. He stated that they had reviewed the minutes of the January 19 meeting at which time Dr. Kerr presided and at which meeting Dr. Gulick was designated as Chairman. He stated that of the 21 specialty groups organized on a statewide basis, ten representatives were present. The representatives were asked for their reaction to the formation of the Interspecialty Committee and also for the reaction of their particular groups. Each felt this was an improvement over the old committee structure.

"Dr. Gulick stated that three questions were asked: (1) What is wrong with the present committee structure, (2) What will be accomplished by reconstructing the Committee and (3) Will communications be hindered or improved?

"The committee members felt that the new method would provide a better opportunity for improving communication from both ends. They agreed they would like to serve on the Committee and would be very happy to devote as much time as is required for the committee to 'really function.' The Committee voted to meet quarterly and suggested that the meetings be held within one month after each Council meeting, which would make it possible for them to perform whatever tasks were assigned by the Council.

"Dr. Kerr explained that the Interspecialty Committee represents the first step in the reorganization of the committee structure which was brought out by the Long-Range Planning Committee and that the Council would be looking to the Interspecialty Committee for suggestions regarding ways in which the Council could improve the work of MSMA and, also, that the Council would have items from time to time for the Committee to consider.

"After discussion, on motion of Dr. McAlhany, duly seconded, the report of the Interspecialty Committee was approved.

(The Speaker referred this portion of the report to the Reference Committee on Constitution and Bylaws.)

"Mr. McIntyre reported on the poll of the Committee on Constitution and Bylaws in regard to the AMA House of Delegates' action regarding Osteopathy, which was discussed at the February 1-2 Council meeting and which is contained on Page 6 of the Council minutes in the Handbook. It was pointed out that the Constitution and Bylaws Committee of MSMA suggested that osteopaths be allowed associate membership in the local and state medical societies. This position would not require a change in the Constitution or Bylaws of the State Association.

"Considerable discussion followed. The final resolution, as adopted by the Council, is as follows:

Resolution—Associate Membership of Osteopaths

Whereas, The Council of the Missouri State Medical Association recognizes that the American Medical Association by the action of its House of Delegates has made it possible for state and county medical societies to accept qualified osteopaths as members of these societies, and

Whereas, The Constitution and Bylaws Committee of the Missouri State Medical Association has indicated they feel no changes in the MSMA Bylaws should be made relative to this matter, at this time, therefore be it

Resolved, That the action of any county medical society which wishes to accept qualified osteopaths as associate members will not be held in conflict with the present Bylaws of the Missouri State Medical Association, and that the qualifications of such osteopaths shall be evaluated solely on an individual basis by each individual county medical society, and be it further

Resolved, That component county medical societies consider such changes in their Bylaws which will make it possible for qualified osteopaths to gain associate membership in that particular component county society.

(The Speaker referred this portion of the report to the Reference Committee on Miscellaneous Affairs.)

"Dr. Kerr presented a letter received from the Arizona State Medical Association regarding the proposed action of the Food and Drug Administration to remove certain drugs from the market. He pointed out that Arizona disapproved this action by the FDA and, therefore, had prepared a resolution which they propose to submit to the AMA House of Delegates at the next session. A copy of the Arizona resolution follows for informational purposes:

The Arizona Medical Association Board of Directors Resolution

WHEREAS, (1) The Food and Drug Administration (FDA) has recently published notices in the Federal Register of proposed action whereby certain drugs may be removed from the market which practicing physicians have used widely with beneficial results for a number of years; and

WHEREAS, (2) The proposed action is based upon the recommendations of panels of the National Academy of Sciences-National Research Council, Drug Efficacy Study Group (NAS/NRC) and apparently without the benefit of consultation with practicing physicians who have used the drugs; and

WHEREAS, (3) If there is to be a meaningful evaluation of these drugs in addition to considering the panel reports, the FDA also should make a thorough investigation to obtain pertinent data and opinions from the practicing physicians who have used the drugs; and

WHEREAS, (4) Notices published in the Federal Register are not an adequate means for obtaining such data and opinions,

NOW, upon motion duly made, seconded and unanimously carried, it is

Resolved, That the Arizona Medical Association, Inc., would disapprove of the removal of the drugs referred to above from the market on the basis of NAS/NRC panel reports and without a thorough investigation by the FDA to obtain pertinent data and opinions from practicing physicians who have used the drugs; and it is further

Resolved, That the Food and Drug Administration is hereby requested to take appropriate action to institute a thorough investigation to obtain such data and opinions from practicing physicians who have used the drugs; and it is further

Resolved, That the representatives of the State of Arizona in the United States Congress are hereby requested to introduce appropriate legislation to amend the Federal Food, Drug and Cosmetic Act to insure that the Food and Drug Administration conducts such an investigation in similar circumstances before proceeding to remove a drug from the market; and it is further

Resolved, That the Secretary of the Arizona Medical Association, Inc., is hereby directed to send copies of this resolution to:

1. The American Medical Association and request that that organization adopt a similar resolution.
2. Congressmen representing the State of Arizona in the United States Congress and request them to sponsor such legislation.
3. The Federal Food and Drug Administration and request them to institute appropriate action to conduct a thorough investigation to obtain pertinent data and opinions from practicing physicians who have used the drugs referred to above.

"After discussion, on motion duly seconded, it was agreed that the Council instruct the MSMA Delegates to the AMA to consider this matter and to support the stand taken by Arizona.

"Dr. Kerr presented a letter received from Dr. Blaine Hibbard of Kansas City objecting to a form received from the Department of Revenue, Driver's License Department, for certification of a patient regarding whether or not he is capable of driving a motor vehicle. After discussion, it was agreed, on motion of Dr. Kerr, duly seconded, that this question be referred to the Committee on Environmental Health for study and recommendation.

"Dr. Kerr also reported that the Missouri State Nurses Association had requested an opinion regarding the problem of TB testing and Immunization of Children. Since an answer was needed in the next few days, it was agreed, on motion, that Dr. Kerr formulate a letter to be sent to the Missouri State Nurses Association over his signature.

(The Speaker referred this portion of the report to the Reference Committee on Medical Education.)

"Dr. John I. Matthews, Chairman of the Legislative Committee, presented a report on pending legislation in the 75th General Assembly. He stated that Bob Carroll, Royal Cooper and Mr. McIntyre were doing a fine job in keeping abreast of legislation in which MSMA is particularly interested. He stated that a number of hearings had been held and that they were attended by a number of physicians. He gave a brief rundown on a number of bills under consideration at this time and on the status of these bills at the moment. He stated that only one bill had actually been actively opposed and that was the chiropractic bill.

(Left to right) **Dr. William D. Bradshaw of Clinton was named Councilor of the Sixth District, Dr. Eugene T. Hansbrough of Poplar Bluff was named Councilor of the Tenth District and Dr. John N. Martin of St. Joseph was named Councilor of the First District at the 111th Annual Session. Dr. Martin replaced President-Elect Joseph L. Fisher on the MSMA Council.**

"After discussion, on motion of Dr. Benoit, duly seconded, the Legislative Committee report was accepted.

(The Speaker referred this portion of the report to the Reference Committee on Miscellaneous Affairs.)

"Dr. Finnegan, Editor of MISSOURI MEDICINE, thanked the Council for the opportunity to recommend members to be appointed to the Editorial Board and Publication Committee for MISSOURI MEDICINE. He recommended that the Editorial Board, as it now stands, be reappointed because all of the members were doing an excellent job and he really needs their assistance. He also recommended that the following physicians be appointed to the Publication Committee: Drs. Charles S. Sherwin, St. Louis; Byron M. Stuart, Boonville; William C. Mixson, Kansas City; Wilfred E. Wooldridge, Springfield. On motion of Dr. McAlhany, duly seconded, the above committee appointments were approved, with Dr. Finnegan to serve as Chairman of the Publication Committee.

(The Speaker referred this portion of the report to the Reference Committee on Reports of Officers.)

"Dr. William D. Mayer, Dean of the University of Missouri School of Medicine, presented a problem regarding payment of certain professional charges under the Title XIX by the Missouri Division of Welfare. He stated that he, Dr. William H. Danforth of Washington University and Dr. G. R. Broun of St. Louis University had met with Mr. Proctor Carter to try to resolve this problem. The situation has not been resolved, however.

"After lengthy discussion, on motion of Dr. Benoit, duly seconded, it was agreed that this matter be re-

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ferred to the Medical Economics Contract Committee for exploration and resolution.

(**Referred to the Reference Committee on Resolutions.**)

"Mr. Speaker, this concludes the supplementary report of the Council meeting."

On motion, duly seconded, the report was accepted.

The Speaker announced the reference committees which were charged with considering various subjects within the Council's supplementary report and, also, noted the reference committee assignments for additional matters in the Delegates' Handbook.

Dr. Kerr named the following members of the Committee on Nominations: Drs. John N. Martin, Phillip B. Foreman, Hubert A. Ritter (Chairman), Charles Miller, Jr., William B. See, Donald Giesler, Robert W. Forsythe, Kenneth Glover, B. J. Bass and John K. Legan.

The Speaker invited the introduction of new business.

Dr. Allen Klippel introduced three resolutions from the Joint Committee on Emergency Medical Services of the St. Louis Medical Society and the St. Louis County Medical Society.

The first resolution introduced by Dr. Klippel is as follows:

Resolution—Ambulance Service for the Indigent

Whereas, The State of Missouri has seen fit to subsidize a part of the cost of the medical care of the indigent peoples of this state through the Medicaid Program, and

Whereas, Proper transportation of the sick and injured may be considered as an essential in their medical management, now

Be It Resolved, That this convention of the MSMA go on record to suggest to the Division of Health of the State of Missouri that payment be made under the Medicaid Act to the providers of ambulance service for the indigent. The fees for this service should parallel those of the Federal Medicare Program.

(**Referred to the Reference Committee on Resolutions.**)

The second resolution introduced by Dr. Klippel is as follows:

Resolution—Oppose Repeal of Motor Vehicle Inspection Law

Whereas, The death rate from accidents on the highways of this state is increasing annually, and

Whereas, Mechanical failure or the operation of mechanically unsound automobiles have been implicated as causes of some of the accidents, and

Whereas, It is the duty of all physicians of this state to try to prevent as well as cure injury and disease, now

Be It Resolved, That this annual convention of the MSMA go on record in opposition to repealing the Motor Vehicle Inspection Law, suggesting, instead, that inequities be amended out of the present law.

(**Referred to the Reference Committee on Resolutions.**)

The third resolution introduced by Dr. Klippel is as follows:

Resolution—Emergency Medical Services

Whereas, Every year, 20,000 people in the United States lose their lives unnecessarily because of inadequate emergency rescue services to care for accident victims (many in this state), and

Whereas, Many communities of this state have no available rescue services or inadequate rescue facilities, and

Whereas, Many communities of this state do not have sufficient funds to defray the cost of adequate rescue services, and

Whereas, The National Highway Safety Act requires the state to develop satisfactory programs for Emergency Medical Services, and

Whereas, The Medical Center of the University of Missouri and the Emergency Medical Services Committee of the MSMA (Committee on Disaster Medical Care and National Defense and Committee on Trauma) and various of the State Medical Societies are concerned about this lack of proper equipment and personnel, now

Be It Resolved, That this convention of the MSMA go on record to suggest to the legislators of this state that an additional tax be added to the cost of gasoline to obtain revenue to coordinate and subsidize, when necessary, a statewide program for emergency medical services.

The local needs would be evaluated through a coordinated program of surveys conducted by the medical societies, medical schools and medical agencies of this state, public and private, in conjunction with other interested parties and governmental units.

Based upon these surveys, Emergency Medical Services would be made available in all areas of the state either from other areas by using helicopters, etc. or by subsidizing what local services are already in existence so that such services would meet the standards of the Federal Highway Safety Act.

(**Referred to the Reference Committee on Resolutions.**)

Dr. Frank Matteson introduced a resolution from the Northwest Missouri Medical Society.

Resolution—Shortage of Nurses

Whereas, There is an acute shortage of Registered Nurses in Missouri, and

Whereas, Many diploma schools are closing for lack of funds, and

Whereas, There has recently been an upsurge of sentiment for the promotion of other poorly-trained paramedical personnel of various kinds,

Be It Resolved, That MSMA start a vigorous program of promotion of Schools of Nursing within the state, and

Be It Further Resolved, That this body go on record as urging the subsidization of all Schools of Nursing in Missouri in order to alleviate the financial bind and the critical need for additional qualified nursing personnel.

(**Referred to the Reference Committee on Medical Education and Hospitals.**)

Dr. Ned Chase offered a joint resolution from Jasper County and Greene County Medical Societies regarding malpractice legislation and insurance.

Resolution—Malpractice Legislation and Insurance

Whereas, The individual members of the Medical Profession in the State of Missouri have been subject to an increasing number of medical malpractice suits, and

Whereas, A great number of said malpractice suits are unfounded, and

Whereas, It is in the interest of the public as well as the medical profession to see that proper procedures are adopted to prevent such unfounded legal actions, and

Whereas, Malpractice insurance premium rates are increasing at an alarming rate,

Be It Resolved, That the Medical Legal Committee of the MSMA be directed to investigate and draft legislation seeking measures of relief in the area of malpractice suits, and

Be It Further Resolved, That the Medical Legal Committee be directed to investigate the feasibility of the MSMA sponsoring types of insurance in the malpractice field which might alleviate some of the problems, and

Be It Further Resolved, That the Medical Legal Committee study statutes and forms of insurance enacted in other states and other medical associations in drafting their proposals.

(**Referred to the Reference Committee on Constitution and Bylaws.**)

Dr. Leo Taylor submitted a resolution from the Eighth Councilor District regarding Osteopaths.

Resolution—Osteopaths

Whereas, At the present time, Schools of Osteopathy and affiliated hospitals have not been opened to inspection by the Joint Commission on Accreditation, and

Whereas, There has been no official acceptance or approval by the Osteopathic Association since the action of the AMA House of Delegates in December, 1968, therefore

Be It Resolved, That the House of Delegates of the MSMA recommend that the status of Doctors of Osteopathy in relation to medical doctors remain the same until such time as the Osteopathic Association officially expresses a desire and willingness to cooperate in teaching and training programs.

(**Referred to the Reference Committee on Miscellaneous Affairs.**)

Dr. Joseph Edwards introduced a resolution from the Third Councilor District concerning Neighborhood Health Care.

Resolution—Neighborhood Health Care

Whereas, The neighborhood health care clinics are being funded by the federal government in various areas of the state, and

Whereas, Traditionally, the medical societies have been organized for the improvement of health care and its delivery for the best interest of the patient and the community, and

Whereas, The neighborhood health problem, while being a state and national problem, is directly in the interest of the local community, and

Whereas, The local or county medical societies could set aside office space and employ personnel with some knowledge and training in the health field to gather, organize and condense the information under the supervision of the secretary and the council of the medical society to be used to further the efficiency of such neighborhood health care clinics, therefore

Be It Resolved, That the House of Delegates of the Missouri State Medical Association approve the application of local medical societies to municipal, state or federal governments to help them finance studies of neighborhood health care centers relative to quality of medical care, unit cost of such care, methods to improve delivery of health care, of coordinating the future of such centers to avoid overlapping areas, offering consultation regarding medical matters when requested, offering a forum for discussion of matters in health care, assisting in organization and planning of clinics and follow-up care, including liaison with hospitals and medical schools in the areas which might provide hospital care for the patients and assisting in efforts to improve the quality of medical care and the physician-patient relationship.

(Referred to the Reference Committee on Constitution and Bylaws.)

Dr. Ernest E. Wadlow introduced a resolution from Buchanan County Medical Society concerning information on legislation pertaining to health matters.

Resolution—Legislation Pertaining to Health Matters

Whereas, In the United States Congress and the Missouri State Legislature, legislation is frequently being introduced which affects the general health environment, the practice of medicine and the cost of health care to our citizens, and

Whereas, Members of the Missouri State Medical Association should have knowledge of such pending legislation, its probable effect and what action should appropriately be taken, therefore

Be It Resolved, That the House of Delegates of the Missouri State Medical Association request the administrative offices of the Association to inform all members by news letter or other appropriate medium, as promptly as possible, of the introduction of such legislation, its probable effects, its progress, the official attitude of the Association and what each member should do pertaining to such legislation.

(Referred to the Reference Committee on Miscellaneous Affairs.)

Dr. James C. Sisk introduced a resolution from the St. Louis County Medical Society concerning Student Medical Organizations.

Resolution—Student Medical Organizations

Whereas, The Student American Medical Association and other Student Medical Organizations serve medical students, interns and residents and provide them with their initial introduction to and experiences with practicing physicians, and

Whereas, Members of SAMA and the other Medical Student Organizations soon will become the medical confreres of physicians now in active practice, and

Whereas, Personal, friendly contacts and communications with SAMA and other student medical organization chapters and their members by practicing physicians furnish the most satisfying and fruitful channels of bringing tomorrow's physicians into the mainstream of American medicine, and

Whereas, The influence of administrative leaders and faculty of medical schools is important in shaping the attitudes of future physicians in their forthcoming practice of medicine, and

Whereas, Several county and state medical societies have initiated liaison with SAMA and other medical student chapters which has proved to be most worthwhile and productive, therefore

Be It Resolved, That the Missouri State Medical Association House of Delegates enthusiastically urges every county and state medical society to initiate and maintain a continuing program of active liaison with students at medical schools within their jurisdictions, especially through active functioning chapters of SAMA, and

Be It Further Resolved, That all levels of organized medicine initiate liaison with administrative officials and faculty of medical schools in order to assist in bringing tomorrow's physicians into the mainstream of American medicine.

(Referred to the Reference Committee on Constitution and Bylaws.)

Dr. Sisk submitted another resolution from the St. Louis County Medical Society concerning national education of more Missourians.

Resolution—Education of Missouri Physicians

Whereas, There is a present need for additional physicians in Missouri, and

Whereas, The House of Delegates of the Missouri State Medical Association has gone on record as recognizing the shortage of members of the healing arts profession in Missouri and has urged the training and medical education of more Missourians as quickly as possible, and

Whereas, The Missouri State Medical Association has affirmed the desirability of a new state medical school in Kansas City, and

Whereas, The private medical schools are willing and able to contract with the state to provide medical education to additional Missourians, therefore

Be It Resolved, That the House of Delegates of the MSMA support the education of more Missourians as physicians in both public and private institutions of higher learning, giving first priority to increasing the number of students in existing schools as being the most rapid and least expensive methods of beginning this task, and

Be It Further Resolved, That a copy of this resolution be sent to the Missouri Commission on Higher Education, the members of the Council of the Missouri State Medical Association and such other individuals and groups as may have an interest in this subject matter.

(Referred to the Reference Committee on Miscellaneous Affairs.)

Dr. Robert Kelley presented a resolution jointly sponsored by the St. Louis Medical Society and the St. Louis County Medical Society.

Resolution—Oppose Senate Bill 275

Whereas, Senate Bill No. 275—cited as "The Not For Profit Health Services Corporation Law"—is under consideration by the 75th General Assembly of the State of Missouri, and

Whereas, The provisions of the Bill would place the two Blue Shield and two Blue Cross plans in Missouri under the authority, supervision and control of the Superintendent of the Division of Insurance of the Department of Business and Administration of the State of Missouri and would define the plans to be, for all regulatory purposes, insurance corporations, and

Whereas, The Blue Shield plans, in fact, are voluntary associations of citizens—duly chartered by the laws of Missouri under pro-forma court decrees—to be the mechanism by which subscribers, in groups, or as individuals, make prepayment provision for the cost of the services of physicians, and

Whereas, The extent of such services and the costs thereof have been freely negotiated through the plans to serve the interests of subscribers on the one hand and the professional providers of medical-surgical services, on the other, and

Whereas, The plans are at present flexibly responsive to the needs and wishes of both parties to the voluntary association so that dues and benefits may readily be adjusted to meet actual needs, and

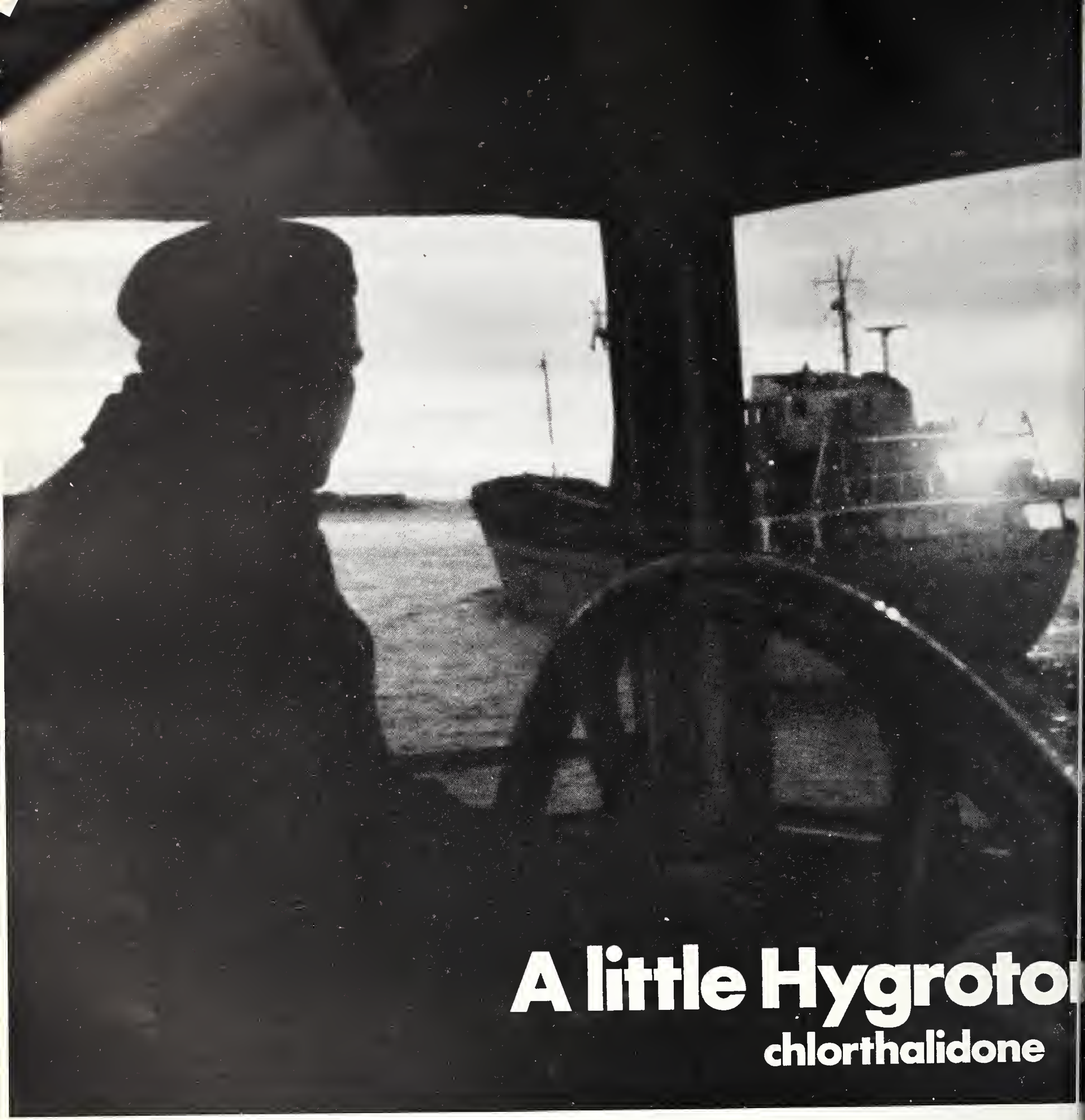
Whereas, More than one and one-quarter million citizens of Missouri are currently protected by the programs of the two plans under agreements entered into by individual subscribers, employers and union and agricultural organizations, and

Whereas, Both Blue Shield plans are moving to provide essentially complete protection with the full cooperation of the medical profession—within guidelines set by the Medical Economics Contract Committee of the Missouri State Medical Association, and

Whereas, The performance record of the plans makes it apparent that they have served to meet a community need and that they must continue to be readily responsive to such needs as nonprofit community service organizations, and

Whereas, The two companion Blue Cross plans that provide prepaid coverage of hospital expenses throughout the state would be similarly affected by the enactment of the proposed legislation, contrary to the interests of more than one and one half million subscribers, and, in particular, without reference to the concern of the physicians who make up one third of the membership of both Blue Cross governing boards, now, therefore

Be It Resolved, That the House of Delegates of the Missouri State Medical Association record its opposition to Senate Bill No. 275, and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Be It Further Resolved, That this House direct the Council and the Legislative Committee of the Missouri State Medical Association to resist the enactment of the proposed legislation by every lawful and appropriate means.

(Referred to the Reference Committee on Resolutions.)

Dr. Hubert Ritter submitted a resolution relating to Regional Panels for Reviewing Medical Professional Liability.

Resolution—Regional Panels for Reviewing Medical Professional Liability

Whereas, Physicians are constantly threatened by the possibility of legal action, and

Whereas, The frequency of such action is increasing at a rapid rate with a proportionate rise in cost for medical professional liability insurance, and

Whereas, The legal profession has no opportunity to evaluate the merits of a case other than by costly court proceedings, be it therefore

Resolved, That the Missouri State Medical Association should appoint Regional Panels representing all of the various specialties practicing medicine in the state, the purpose of such Panels to review all suspected cases of Medical Professional Liability (malpractice):

1. The standby Panels to consist of sufficient reputable, practicing, licensed physicians in the State of Missouri so that each of the disputants in any issue would have some latitude in selecting a special Panel of men conversant in the appropriate field, wherein any claim would exist,
2. The sub-panel in any given case should consist of not less than three men preferably within the specialty of the issue at question, or conversant with the issue in question,
3. That such Panels be prepared to furnish expert advice and counsel to both defendant's and plaintiff's attorneys regarding the professional management of any case under question,
4. That the membership of the Missouri Bar be apprised of the existence of such Panels and be encouraged to submit potential claims against physicians to the Panel,
5. That at no time would the review of any claim be binding on either the plaintiff or the defendant in his action,
6. And that Panels be organized in the eastern and western areas of the State of Missouri, in order that claims from one area could be reviewed in the opposite area to provide as nearly neutral and impersonal a review as possible.

(Referred to the Reference Committee on Constitution and Bylaws.)

Dr. Ritter introduced a second resolution relating to Cardiac Resuscitation.

Resolution—Cardiac Resuscitation

Whereas The need for Cardiac Resuscitation, namely the restoration of the vital functions, by establishing an airway and circulation by the use of external cardiac massage not uncommonly occurs in a patient, and

Whereas, This may occur at such a time that the physician is not readily available, and

Whereas, Registered professional nurses, by their quick action and training may be instrumental in saving the life of this patient, let it

Be Resolved That, The Missouri State Medical Association, at its convention on March 20-23, 1969, urges the Legislature of the State of Missouri to formulate such a Bill, that would thereby free the individual registered nurse from untoward action and liability in the courts of Missouri for this procedure.

(Referred to the Reference Committee on Medical Education.)

At this time, the Speaker directed the attention of the House of Delegates to the resolutions contained in the Delegates' Handbook and noted that the resolutions had been assigned to various reference committees, as follows:

Referred to the Reference Committee on Miscellaneous Affairs:

- —Resolution No. 1, Uniform Anatomical Gift Act—Submitted by Jackson County Medical Society.
- —Resolution No. 2, Physicians Liability Protection—Submitted by Jackson County Medical Society.
- —Resolution No. 3, State Medical Examiner System—Submitted by Jackson County Medical Society.

Referred to the Reference Committee on Reports of Officers:

- —Resolution No. 4, County Society Officer's Conference—Submitted by Greene County Medical Society.
- —Resolution No. 5, Improvement of Communications—Submitted by Greene County Medical Society.
- —Resolution No. 6, In-Depth Study of Health Care Costs in Missouri—Submitted by Greene County Medical Society.

Referred to the Reference Committee on Constitution and Bylaws:

- —Resolution No. 7, Comprehensive Health Planning—Submitted by Greene County Medical Society.
- —Resolution No. 9, William Beaumont Commemorative Stamp—Submitted by Third Councilor District.

Referred to Reference Committee on Medical Education and Public Welfare:

- —Resolution No. 8, Statement of Policy on Chiropractic—Submitted by Greene County Medical Society.

Referred to Reference Committee on Resolutions:

- —Resolution No. 10, Physician's Fees Under Medicare—Submitted by Third Councilor District.

There being no additional business, the Speaker declared the first session of the House of Delegates adjourned.

SECOND SESSION

Friday, March 21, 1969

The Second Session of the House of Delegates was called to order at 4 PM in the Chase Club with Dr. Paul Max, Speaker, presiding. Dr. George J. Lytton of the Credentials Committee reported that a quorum was present.

Dr. Robert Forsythe, Chairman of the Reference Committee on Constitution and Bylaws, was invited to make his report.

CONSTITUTION AND BYLAWS

The Reference Committee on Constitution and Bylaws met on March 20, 1969. The meeting convened in the Coach Room of the Chase-Park Plaza Hotel at 5:30 PM and was adjourned at 8 PM. Those present were Drs. Robert W. Forsythe, Kansas City, Chairman; Joseph C. Edwards, St. Louis; A. W. Eklund, Pleasant Hill; Edwin K. Burford, Cape Girardeau; and C. H. Lewellen, Louisiana.

Several items concerning comprehensive health care were discussed. Dr. Kerr's recommendation to submit names of physicians to the Governor for possible appointment to the Advisory Council was approved.

The resolution and action relative to comprehensive health planning, which were approved by the Council at its meeting of May 11-12, 1968, were reviewed. Your Committee recommends their approval. Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution No. 7 concerning Comprehensive Health Planning, which was presented by the Greene County

Medical Society, is recommended by the Committee with an amendment in the *Resolve* to make it read "Recommendation of the Missouri State Medical Association regarding a *significant* number of appointments, instead of *additional* appointments, of physicians in private practice of medicine."

Resolution No. 7.—Comprehensive Health Planning

Whereas, Since the enactment of Public Law 89, 749, the State of Missouri has established a state agency to administrate comprehensive health planning in Missouri, and

Whereas, The Advisory Council which has been appointed in Missouri, as provided in the law, to advise the state agency, has had only one physician in full time private practice appointed to the Council, and

Whereas, Physicians in the private practice of medicine are in a unique position to best understand the medical needs of the community, and

Whereas, The Missouri State Medical Association, in a resolution adopted in 1968, has already expressed its willingness and ability to recognize and accept responsibility for health planning, therefore be it

Resolved, That this House of Delegates of the Missouri State Medical Association urge that Governor Warren E. Hearnes seriously consider the recommendations of the Missouri State Medical Association regarding a significant number of appointments of physicians who are in the private practice of medicine to the Advisory Council for Comprehensive Health Planning in Missouri.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Several matters relating to the Long-Range Planning Committee were discussed, including actions of the Council at its meetings of May 11-12 and Sept. 6, 1968. The Committee recommends the approval of these actions.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Relative to the Interspecialty Medicine Committee, the action at the Council meeting of Feb. 1-2, 1969 was reviewed, as was the action of the Interspecialty Council Committee meeting on March 19, 1969. The Committee recommends approval of these actions.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

The Committee recommends the Missouri State Medical Association endorsement of the program for the "Early Detection of Cervical Cancer in the Office of the Family Physician." The Committee also recommends the transfer of the administrative procedure of this program to the Department of Community Health and Medical Practice of the University of Missouri. The Committee also recommends approval of the application made to the Missouri Regional Medical Program by the Missouri Academy of General Practice for this purpose.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

The Committee examined the resolution relative to the Neighborhood Health Centers introduced by Dr. Joseph C. Edwards of St. Louis. The Committee suggests several minor changes in wording and approves the following amended resolution:

Resolution—Neighborhood Health Care

Whereas, The neighborhood health care clinics are being funded by the federal government in various areas of the state, and

Whereas, Traditionally, the medical societies have been organized for the improvement of health care and its delivery for the best interest of the patient and the community, and

Whereas, The neighborhood health problem, while being a state and national problem, is directly in the interest of local community, and

Whereas, The local or county medical societies could set aside office space and employ personnel with some knowledge and training in the health field to gather, organize and condense the information under the supervision of the secretary and the Council of the Medical Society to be used to further the efficiency of such neighborhood health care clinics, therefore be it

Resolved, That the House of Delegates of the Missouri State Medical Association approve the application of local medical societies to municipal, state, federal agencies for grants to aid in gathering information of neighborhood health care centers relative to quality of medical care, unit cost of such care, methods to improve delivery of health care, of coordinating the future of such centers to avoid overlapping areas, offering consultation regarding medical matters when requested, offering a forum for discussion of matters in health care, assisting in organization and planning of clinics and follow-up care, including liaison with hospitals and medical schools in the areas which might provide hospital care for the patients, and assisting in efforts to improve the quality of medical care and the physician-patient relationship.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

In regard to Resolution No. 9 regarding a request to the Postmaster General of the United States to issue a commemorative stamp in honor of William Beaumont, M.D., the Committee recommends approval, with the understanding that this resolution will be forwarded to proper authorities and interested parties.

Resolution No. 9—William Beaumont, M.D. Commemorative Stamp

Whereas, William Beaumont, M.D., was hailed as the first great American physiologist for his pioneering experiments in the physiology of digestion, which forms the basis of our present day knowledge of the digestive process, while practicing in St. Louis, Missouri between 1833 and his death in 1853,

Whereas, Doctor Beaumont's study and examination of his patient, Alexis St. Martin, led to his international acclaim for scientific achievement and his recognition as one of the great men of American Medicine; in recognition of his outstanding contribution to knowledge and in tribute to his memory, the physicians of the State of Missouri in 1964 opened a Medical Historical Museum in St. Louis with a life-size diorama describing his work, which is rapidly earning the reputation of "the country's most significant medical museum" and

Whereas, Doctor Beaumont was the Post Surgeon at Fort Michilimackinac on Mackinac Island, Michigan in 1822 when his opportunity for research, which has exerted a profound influence upon generations of medical thought, took place 147 years ago and the medical societies of Connecticut, where Doctor Beaumont was born; Vermont, where he was first licensed to practice medicine; Michigan, where he began his treatment of the patient and his study; Wisconsin, where he continued his research begun in Michigan; and Missouri, where he became a leader among his contemporaries and world-famous for the contributions to medical science through his teaching and writing and where he died and is buried, are jointly engaged in an effort to appropriately further honor the name and memory of William Beaumont, M.D., now, therefore, be it

Resolved, By the House of Representatives (the Senate concurring), that the Missouri Legislature does by these presents join the cooperative efforts of the several states and does petition and urge the Postmaster General of the United States to issue a commemorative postage stamp honoring William Beaumont, M.D. on the 150th anniversary (1822-1972) of "The Mackinac Miracle" or "The First Modern Study of the Human Digestive System."

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution—Student Medical Organizations

The resolution introduced by the St. Louis County Medical Society regarding Student Medical Organizations is recommended for approval with the deletion of the phrase "and other medical student organizations" wherever it is used in the resolution. The Committee also calls attention to the MSMA President's recommendations relative to closer liaison between the MSMA and SAMA organizations.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution—Malpractice Legislation and Insurance

The resolution submitted by the Jasper County and Greene County Medical Societies concerning Malpractice Legislation Insurance is recommended for approval with the following amendment in the *Resolve:*

Be It Resolved, That the Medical Legal Committee of the MSMA be directed to investigate the subject of professional liability with the view of alleviating or solving the various problems which are increasing in this area.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution—Regional Panels for Reviewing Medical Professional Liability

The Committee reviewed the resolution submitted by the St. Louis County Medical Society regarding the Regional Panels for Reviewing Medical Professional Liability. The Committee recommends that the word "alleged" be substituted for the word "suspected" in the resolution.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed. The motion to adopt the report as a whole was seconded and passed.)

The Speaker invited Dr. E. D. Imes, Vice-Speaker, to preside.

Dr. Charles S. Sherwin, Chairman, was invited to give the report of the Reference Committee on Resolutions.

RESOLUTIONS

The meeting of the Reference Committee on Resolutions was held at 6 PM on March 20, 1969 in the Colonial Room of the Chase-Park Plaza Hotel with all members present.

Resolution—Oppose Repeal of Missouri Vehicle Inspection Law

The resolution of the Joint Committee on Emergency Medical Services of the St. Louis Medical Society and the St. Louis County Medical Society opposing repeal of the Motor Vehicle Inspection Law was recommended for approval by the Committee.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution—Emergency Medical Services

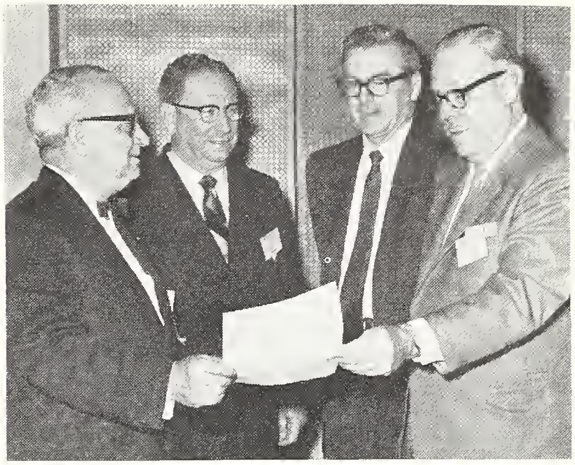
The resolution of the Joint Committee on Emergency Medical Services of the St. Louis Medical Society and the St. Louis County Medical Society regarding state evaluation of emergency medical services and implementation of a statewide program for these services was not recommended for approval.

Mr. Speaker, I move that this resolution not be approved.

(The motion was seconded. During the discussion, the motion was made to return the resolution to the Resolutions Committee for further discussion. It was seconded and passed.)

Resolution—Ambulance Service for the Indigent Under Medicaid

The resolution of the Joint Committee on Emergency Medical Services of the St. Louis Medical Society and the St. Louis County Medical Society regarding payment of ambulance service for the indigent under Medicaid was not recommended for approval.



Councilor Gerald Miller, Treasurer Max Franklin, Secretary John Matthews and Councilor Walter Gunn give special consideration to a matter to come before the Council.

Mr. Speaker, I move that this resolution not be approved.

(The motion was seconded. During the discussion, a substitute motion was made to return the resolution to the Resolutions Committee for further discussion. It was seconded and passed.)

Resolution—Oppose Senate Bill No. 275

The resolution of the Third and Fourth Councilor Districts opposing Senate Bill No. 275, which would place the Blue Plans under the Insurance Commission, was approved.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution No. 10—Physician's Fees Under Medicare

Resolution No. 10 of the Third Councilor District regarding Physician's Fees was amended as follows:

Whereas, Doctors accepting payment under government programs are being threatened by a fixed fee schedule by the government, therefore be it

Resolved, That the 1969 House of Delegates of the Missouri State Medical Association goes on record as being unalterably opposed to the acceptance of fees fixed by the government without adequate negotiation and medical representation, and be it further

Resolved, That copies of this resolution be sent to the House of Delegates of the AMA, to the United States Senators and Representatives of Missouri and to the Governor of the State of Missouri and the Members of the Missouri State Legislature.

This resolution was approved by the Committee as amended.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded. During the discussion, it was moved that the original Resolution No. 10 be adopted instead of the amended Resolution No. 10. It was seconded and passed.)

Original Resolution No. 10

Whereas, Doctors taking assignments under Medicare are being threatened by a fixed fee schedule by the government, therefore be it

Resolved, That the House of Delegates of the Missouri State Medical Association goes on record as being opposed to the acceptance of assignments under Medicare in particular and to the principle of assignments in general, and be it further

Resolved, That the 1969 House of Delegates of MSMA goes on record as being unalterably opposed to the acceptance of fixed fees by the government, and be it further

Resolved, That copies of this resolution be sent to the House of Delegates of the AMA, to the United States Senators and Representatives of Missouri and to the Governor of the State of Missouri and the members of the Missouri State Legislature.

(Later in this session of the House, it was voted to reconsider the adoption of Resolution No. 10. A motion to table the resolution in both its original and amended forms was seconded and passed.)

The minutes of the Council meetings were approved as published.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Mr. Speaker, I move the adoption of the report as a whole as amended.

(The motion was seconded and passed.)

Dr. Rae Froelich, Chairman of the Reference Committee on Miscellaneous Affairs, was invited to give his report.

MISCELLANEOUS AFFAIRS

The Reference Committee on Miscellaneous Affairs convened in the Coach Room, Chase-Park Plaza Hotel, at 4:30 PM on Thursday, March 20, 1969, with Dr. R. W. Froelich, Chairman, presiding. Members of the Committee were Drs. W. D. Bradshaw, R. Allen Chandler, Thomas Ferguson and Henry Durst.

The Official Reports of Committee and Council to the House of Delegates were published and issued to each Delegate. All these matters referred to this Reference Committee were reviewed and accepted as published. I move the adoption of this portion of the report.

(The motion was seconded and passed.)

The matters referred to this Committee from the Council meetings of February 1 and 2 were reviewed and accepted by the Committee.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution No 1—Uniform Anatomical Gift Act

Resolution No. 1 of the Delegates' Handbook, which was introduced by the Jackson County Medical Society, was reviewed.

WHEREAS, Chronic renal dialysis is presently being administered at several centers in Missouri, and

WHEREAS, The advances in organ transplantation in recent years have been followed by successful kidney transplantations in hundreds of patients throughout the country, and

WHEREAS, The largest source of supply of transplantable organs in these successful cases has been from cadavers, and

WHEREAS, Present Missouri law forbids the donation of parts or all of the human body by relatives of the deceased in the absence of the deceased's prior permission, and

WHEREAS, The National Conference of Commissioners on Uniform State Laws, composed of lawyers, jurists and professors of law of every state, have over a period of three years developed the Uniform Anatomical Gift Act which would allow such donations and protect the wishes of the deceased and the rights of the next of kin and society, therefore be it

Resolved, That the Missouri State Medical Association express its support for the adoption of legislation incorporating the body of the Uniform Anatomical Gift Act adopted by the National Conference of Commissioners on Uniform State Laws on July 30, 1968.

The Committee recommends that this resolution be approved by the House of Delegates with the following change of the *Resolved* portion of the resolution:

Resolved, That the Missouri State Medical Association express its support for the adoption of legislation (Senate Bill 43) incorporating the body of the Uniform Anatomical Gift Act adopted by the National Conference of Commissioners on Uniform State Laws on July 30, 1968.

The only modification was the insertion of the words "Senate Bill 43." Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution No. 2—Physician Liability Protection

Resolution No. 2 of the Delegates' Handbook, which was introduced by the Jackson County Medical Society, is recommended for approval.

WHEREAS, The organizations established for the accreditation of hospitals provide that the medical staff include procedures within specified committees for reviewing the professional performance of members of the medical staff, and

WHEREAS, Certain Missouri medical societies are establishing programs for reviewing physician-patient relationships and the professional and economic relations pertaining thereto, therefore be it

Resolved, That the House of Delegates of the Missouri State Medical Association sponsor legislation that will provide for the personal liability protection of any physician who may be serving in an officially designated capacity as a member of a committee of a medical hospital staff or of a county medical society, and be it further

Resolved, That statutes enacted in the states of California, Illinois and South Dakota relating to this subject be studied by the Council of the MSMA prior to the introduction of such legislation.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution No. 3—State Medical Examiner System

Resolution No. 3 of the Delegates' Handbook, which was introduced by the Jackson County Medical Society, is recommended for approval.

WHEREAS, The Missouri State Medical Association has consistently supported legislation which would provide for a state medical examiner system for the State of Missouri, and

WHEREAS, Similar support has been expressed by the Missouri Bar Association, the University of Missouri, the State Highway Patrol and many county coroners throughout Missouri, and

WHEREAS, Such legislation in the 74th General Assembly was overwhelmingly passed by the House of Representatives, indicating the widespread support of such a system, therefore be it

Resolved, That the Missouri State Medical Association again reaffirm its position in support of legislation which would provide for a state medical examiner system for the State of Missouri, and that a copy of this resolution be sent to the Governor of the State, the Speaker of the House of Representatives and the President of the State Senate.

Mr. Speaker, I move the adoption of this report.

(The motion was seconded and carried.)

Resolution—Osteopaths

The resolution submitted by the Eighth Councilor District, after lengthy discussion and active participation by delegates and members, is submitted to the House of Delegates for disapproval.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution—Medical Education

Dr. James C. Sisk, the originator of the St. Louis County resolution pertaining to medical education, has withdrawn the resolution. I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution—Information on Legislation Pertaining to Health Matters

The resolution submitted by the Buchanan County Medical Society regarding information on legislation pertaining to health matters is referred to the House of Delegates with recommendation for approval with the following change to the *Resolved* portion of that resolution:

> *Resolved*, That the House of Delegates of the Missouri State Medical Association requests the administrative offices of the Association to inform all members by newsletter or other appropriate medium, as promptly as possible, of the introduction of such legislation, its probable effects, its progress and attitude of the Association.

The change involved deletion of the words "official attitude of the Association" and deletion of the words "And what each member should do pertaining to legislation."

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution—Association Membership of Osteopaths

The resolution submitted from the Council meeting of March 19, and from the special meeting, March 20, 1969 concerning associate membership of osteopaths in county societies is referred to the House of Delegates for approval.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded. After discussion, it was passed.)

Mr. Speaker, I move the adoption of the report as a whole.

(The motion was seconded and passed.)

Dr. Truman B. Schertz, Chairman, was invited to give the report of the Reference Committee on Medical Education and Public Welfare.

MEDICAL EDUCATION AND PUBLIC WELFARE

The Committee on Medical Education and Public Welfare met in the English Room, Chase Hotel, St. Louis, Mo., at 4:30 PM on March 20, 1969. All members were present. It was recommended that the published reports of the following Committees be adopted:

1. Scientific and Postgraduate Work.
2. Cancer.
3. Infant and Child Care.
4. Diabetes Mellitus.
5. Anesthesiology.
6. Industrial Health.
7. Cardiac Disease (Special).
8. Environmental Health.
9. Eye Health.
10. Council Meeting on Paramedical Personnel.
11. Council Meeting on Eye Health.
12. Council Meeting on the Scientific and Postgraduate Work.
13. Council Meeting on Study of Cardiac Disease dated May 11, 12, 1968.
14. Council Meeting on Annual Session.
15. Council Meeting on Infant and Child Care.
16. Council Meeting on Study of Cardiac Disease dated September 7, 8, 1968.
17. Council Meeting on Nursing and Paramedical Personnel.
18. Supplemental Report of the Council dated March 19, 1969.

Mr. Speaker, I move the adoption of that part of the report through Item 18.

(The motion was seconded and passed.)

It was recommended by the Committee that recommendation No. 1 of the Report of the Committee on Alcoholism be deleted and reworded as follows:

> 1. That a Symposium on Alcoholism be considered for each Missouri State Medical Association Annual Meeting.

The change makes it possible without making it mandatory.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

It was recommended by the Committee that the fourth paragraph of the Council Meeting on Eye Health dated February 1, 2, 1969 be deleted and replaced with the following paragraph:

> In summarizing, the report stressed the recommendation that vigorous action be taken to support the Public Law 89-751 type of program and also recommended strong objection to any development of a School of Optometry under public funding in the State of Missouri.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

It was recommended by the Committee that the second recommendation on the Report of the Committee on Nursing and Paramedical Personnel (Special) be reworded as follows:

> 2. Similar urgent pleas, with offers of assistance (where called for and feasible), be directed to the private institutions of higher learning and other approved nursing training programs in Missouri.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

It was recommended by the Committee that the *Resolved* paragraph of the Report of Committee on Nursing and Paramedical Personnel (Special) be reworded as follows:

> *Resolved*, That the House of Delegates strongly advocate action by the legislative and executive branches of the government of the United States to take all the necessary steps to promote the above outlined national objectives.

The only change is the addition of the word "national," which makes it consistent with the WHEREAS clauses that precede it. Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution—Shortage of Nurses

The Committee considered the resolution concerning the shortage of nurses, which was introduced by Northwest Medical Society, and recommends approval of this resolution in its entirety.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution—Cardiac Resuscitation

The Committee considered the resolution on Cardiac Resuscitation and recommends that the third Whereas be reworded as follows:

Whereas, Registered Professional Nurses and selected trained personnel by their quick action and training may be instrumental in saving the life of this patient.

Resolved, The Missouri State Medical Association at its convention on March 20-23, 1969 empower the Council of MSMA to urge the legislature of the State of Missouri to formulate such a bill that would thereby free the individual registered nurse and the selectively trained personnel from untoward action and liability in the courts of Missouri for this procedure.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution No. 8—Statement of Policy on Chiropractic

The Committee considered Resolution No. 8, which was introduced by Greene County Medical Society:

Whereas, The American Medical Association House of Delegates adopted a Statement of Policy on Chiropractic at the 20th Clinical Convention in November 1966, and

Whereas, The AMA reaffirmed this policy at the 117th Annual Convention in June, 1968 and, also, urged state and county medical societies to alert the general public to the health hazard posed by the cult of Chiropractic, and

Whereas, The Missouri Attorney General has issued an opinion that a Chiropractor is not a physician and that the practice of Chiropractic is not the practice of medicine and surgery, and

Whereas, All physicians have a direct and personal responsibility to provide the best scientific medical care and protection of the public health always has been a primary mission of the members of the American Medical Association and the Missouri State Medical Association, now therefore be it

Resolved, That the Missouri State Medical Association formally adopt the AMA policy statement on Chiropractic which reads in part, "It is the position of the medical profession that Chiropractic is an unscientific cult whose practitioners lack the necessary training and background to diagnose and treat human disease. Chiropractic constitutes a hazard to rational health care in the United States because of the substandard and unscientific education approach to disease causation." The delay of proper medical care caused by Chiropractors and their opposition to the many scientific advances in modern medicine, such as life saving vaccines, often ends with tragic results, and be it further

Resolved, That the Missouri State Medical Association make every effort to alert the general public to the health hazard posed by the cult of Chiropractic.

The Committee recommends that Resolution No. 8 be resubmitted as follows:

Whereas, The American Medical Association House of Delegates adopted a Statement of Policy on Chiropractic at the 20th Clinical Convention in November 1966, and

Whereas, This was reaffirmed by the American Medical Association in June 1968,

Resolved, That the Missouri State Medical Association formally adopt the AMA policy statement on Chiropractic.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed. The motion to adopt the report as a whole was seconded and passed.)

Dr. Kenneth Glover, Chairman of the Reference Committee on Reports of Officers, was invited by the Vice-Speaker to give his report.

REPORTS OF OFFICERS

The Reference Committee on Reports of Officers met in session in the Palladian Room, Hotel Chase on March 20, 1969 with all members present. They were Drs. Kenneth Glover, William B. See, John N. Martin, Charles Gulick and Walter Stelmach.

The reports of the President, David N. Kerr; President-Elect Doyle C. McCraw; President of the Woman's Auxiliary to the MSMA, Mrs. E. F. Butler; and the President of the Missouri State Medical Secretaries and Assistants Society, Mary Kay Bourzikas were accepted with commendation.

The Committee recommends approval of the reports of the Secretary, Treasurer, Executive Secretary, Publications Committee and Committee on Public Service, as published in the Delegates' Handbook.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

The portion of the reports of the Council, which were given to this Committee, were approved including the supplemental report. Special attention of the Committee was given to the recommendation of the Feb. 1-2, 1969 Council meeting for an increase in dues from $52.50 to $65.00. This does not include the Missouri State Medical Foundation assessment. This increase in dues was unanimously approved by this Committee.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

To comply with the Constitution and Bylaws, I move that the change in Bylaws reflecting the increase in dues just voted be tabled until the House of Delegates meeting on Sunday morning, March 23.

(The motion was seconded and passed.)

Resolution No. 4, which was introduced by the Greene County Medical Society relative to the Missouri State Medical Association County Officer's Conference, was approved.

Resolution No. 4—Missouri State Medical Association County Society Officer's Conference

Whereas, A very informative officers meeting was held on January 11-12, 1969; and

Whereas, Those who attended were greatly benefited; and

Whereas, There was a very small attendance; therefore be it

Resolved, That this meeting should be continued; and be it further

Resolved, That representatives of all component societies be urged to attend.

Resolution No. 5 was introduced by the Greene County Medical Society.

Resolution No. 5—Improvement of Communications Between the Missouri State Medical Association and Its Medical Component Societies

Whereas, The business of medicine has become much more complicated, and

Whereas, Communications with the Missouri State Medical Association and its component societies and doctors must be strengthened, therefore be it

Resolved, The equivalent of one employee be assigned full time as a field representative of the Missouri State Medical Association.

This Committee recommends that no action be taken on this resolution since Mr. Royal Cooper has been assigned these duties and has been an employee only a short time. It is requested that attention be paid to this matter, however, by the MSMA office.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution No. 6 was introduced by the Greene County Medical Society.

Resolution No. 6—Regarding the In-Depth Study of Health Care Costs in Missouri

Whereas, The House of Delegates of the AMA, at the December meeting in Miami, Fla., issued a mandate to the Board of Trustees to develop an effective plan for immediate and ongoing health care costs survey and to report to the House of Delegates at the meeting in July, 1969, and

Whereas, The AMA took this action in part because of the proposal submitted by the MSMA, regarding an in-depth study of health care costs in Missouri, presented after the annual meeting in March, 1968, and

Whereas, The MSMA Council has approved the action taken by the House of Delegates of the AMA at the December meeting in Miami, now therefore be it

Resolved, That the MSMA take no further action regarding an in-depth study of health care costs in Missouri.

This Committee recommends approval of this resolution as presented.

Mr. Speaker, I move the adoption of this portion of the report.

After the motion was seconded, Dr. Robert Forsythe introduced the following amendment to Resolution No. 6:

Be It Further Resolved, That the House of Delegates of the Missouri State Medical Association reaffirm its position taken in March of 1968 encouraging the AMA to develop an independent study of in-depth health care costs.

(The motion to adopt the amendment was seconded and passed.)

Mr. Speaker, I move the adoption of this report as amended and as a whole.

(The motion was seconded and carried.)

Dr. Sam Bonney, Chairman, was invited to give the report of the Reference Committee on Necrology. In his absence, the report was given by Dr. George Workman.

NECROLOGY

The Reference Committee on Necrology met in the Chase Club, at the Chase Hotel, St. Louis, on Thursday, March 20, 1969, and submitted the following resolution:

Whereas, There have been 65 deaths among our members since the 1968 Annual Session, and

Whereas, Each of these members is missed as an individual as well as for his contributions to the practice of medicine and to the Missouri State Medical Association, and

Whereas, The loss of each member is keenly felt by all members, his loved ones and close associates and, we are confident, the patients he has served with dedication, and

Whereas, Condolences in the form of The Memoriam Perpetuam has been sent to the immediate family of each deceased member, therefore, be it

Resolved, That the same expression of sympathy continue to be sent to each immediate family, and be it further

Resolved, That the House of Delegates now pay personal tribute by standing for a moment of silence in memory of each of the 65 members we have lost and whose names will be recorded in the minutes of this Annual Session.

Mr. Speaker, I move that the report of the Necrology Committee be approved.

(The motion to adopt the report was seconded and the Speaker asked the House of Delegates to stand for a moment of silence in indication of approval of the motion.)

Members Deceased Since the 1968 Session

Langan, William J., M.D., St. Louis
Perry, David C., M.D., Mound City
Parker, Elmer L., M.D., Kansas City
Madison, Waite H., M.D., Kansas City
Green, Daniel M., M.D., St. Louis
Shreffler, Algie R., M.D., Tavernier, Fla.
Jarvis, James A., M.D., Kansas City
Beckemeyer, William A., M.D., Sedalia
Edmonds, Devilla D., M.D., Leawood, Kan.
Sweets, Henry H., Jr., M.D., Hannibal
O'Malley, Eugene J., M.D., St. Louis
Grauerholz, James W., M.D., Kansas City
May, James W., M.D., Kansas City
Reilly, Leo J., M.D., St. Louis
Lee, George C., M.D., Kansas City
Focht, Ralph H., M.D., Strafford
Remley, George C., M.D., Kansas City
Wild, Aloysius A., M.D., St. Louis
Jackson, William R., M.D., Kansas City
LaHue, L. D., M.D., Butler
Thompson, Fred G., Jr., M.D., St. Joseph
Ongjoco, Melchor I., M.D., St. Louis
Tureen, Louis L., M.D., St. Louis
Owens, Hugh H., M.D., Kansas City
Cook, Ralph L., M.D., St. Louis
Klepinger, Dayton P., M.D., Neosho
Satterfield, Val B., M.D., Chesterfield
Marshall, Alfred H., M.D., Charleston
Kraft, Edward O., M.D., St. Louis
Epp, George J., M.D., St. Louis
Aiken, Richard F., M.D., Marshall
Thurber, Claude M., M.D., Windsor
Fallet, Charles E., M.D., DeSoto
Carrier, Edson C., M.D., Kansas City
Middleman, Isadore C., M.D., St. Louis
Parashak, Paul M., M.D., St. Louis
Brewster, Charlotte M., M.D., Kansas City
Potter, Thompson E., M.D., St. Joseph
Osborne, Charles D., M.D., Sedalia
Becke, William G., M.D., St. Louis
Landau, Daniel B., M.D., Hannibal
Wagenbach, William F., M.D., St. Louis
Johnson, Grover C., M.D., Marthasville
Alexander, Harry L., M.D., St. Louis
Lakes, John D., M.D., St. Louis
Frame, Homer G., M.D., Cabool
Fredeen, Robert C., M.D., Fairway, Kan.
Barger, O. B., M.D., Harrisonville
Kent, Clifford F., M.D., Kansas City
Clark, Chester Lee, M.D., Trenton
Kelley, Ralph R., M.D., Savannah
McCarthy, William F., M.D., Kansas City
Liston, Odus, M.D., Oakgrove
Kibbe, Edgar A., M.D., California
Masor, Nathan A., M.D., Chicago, Ill.
Aisenstadt, E. Albert, M.D., Kansas City

Dabbs, LeRoy, M.D., St. Louis
Kessler, Joseph J., M.D., St. Louis
Allaman, John M., M.D., Sarasota, Fla.
Ball, James E., M.D., San Gabriel, Calif.
McClure, Thomas C., M.D., Fort Lauderdale, Fla.
Maclean, J. Alexander, M.D., Chanute, Kan.
Wilucki, Leo E., M.D., St. Louis
Ernst, Edwin C., Sr., M.D., St. Louis
Seabaugh, D. I. L., M.D., Jackson

The Speaker requested any additional reports of the Council. There being none, he invited new business.

Dr. Sciortino introduced a resolution concerning Medical Professional Liability Insurance.

Resolution—Professional Liability Insurance

Whereas, Medical Professional Liability Insurance rates throughout the 50 states, and in the State of Missouri have risen sharply because of the extraordinary activities of the legal profession, the increased sensibility of patients to their "rights," and the changing legal responsibility of their attending physicians, and the increased sizes of monetary awards by juries in proven cases of malpractice, and

Whereas, In some areas liability insurance is not available at any price, and

Whereas, Well-trained, sincere and capable physicians who work with x-ray, radio isotopes and increasingly complex surgical and medical problems of various sorts, who find it impossible to procure liability insurance, are wide open to suit and even loss of their professional practice and reputations, and

Whereas, In the vast majority of cases physicians practice careful rational medicine to achieve the best possible medical results to the patient in accordance with present scientific and medical knowledge, and

Whereas, Physicians are victimized by escalating medical professional liability rates, therefore be it

Resolved, That the Missouri State Medical Association House of Delegates instruct their American Medical Association Delegates to bring to the attention of the AMA House of Delegates, the AMA Legal Department and the AMA Council handling insurance, the Missouri State Medical Association's desire for suitable action at the AMA level which might bring about the formation of a medical liability insurance plan sponsored and supported by the AMA and/or in cooperation with the insurance underwriters, and be it further

Resolved, That copies of this resolution be forwarded to the State Medical Associations of the other forty-nine (49) states seeking their support in this effort.

(Referred to the Reference Committee on Constitution and Bylaws.)

Dr. John Dixon introduced the following resolution from the Grand River Medical Society.

Resolution—Health Center Programs

Whereas, Home nursing services and other public health services are being promoted under programs of state and federal control, primarily organized and administered under lay supervision and being referred to as Health Centers, and

Whereas, Various low population counties are being encouraged by the State Division of Health to establish county Health Centers even where not recommended or approved by local physicians, and

Whereas, These County Health centers would serve as a basis to absorb and expand overlapping nursing and other health service under Home Health Agency of Office of Economic Opportunity of the U. S. Department of Health, Education and Welfare and further would duplicate services that could be rendered by already existing State District Health Officers, and

Whereas, A Home Health Agency is already being operated in nine counties of Northcentral Missouri by the Kirksville Osteopathic Hospital and is providing service far beyond the realm of preventive medicine, and

Whereas, The Missouri Medical Association in a resolution adopted in 1968 expressed the willingness and ability to recognize and accept responsibility for Health Planning, and

Whereas, All these health services carry a tax burden local, state and federal, with which all physicians should be concerned, and, be it therefore

Resolved, That the House of Delegates of the Missouri State Medical Association express disapproval of the establishment of so-called Health Centers unless approved by the majority of the physicians in the area concerned, and, further, that there be a physician on the governing board of such centers that are established.

(Referred to the Reference Committee on Constitution and Bylaws.)

Dr. Donald Dowell spoke briefly on the Resolution.

Dr. Truman B. Schertz of Clay County Medical Society introduced the following resolution:

Resolution—Ambulance Service

Whereas, Current Federal Wage-Hour Laws that apply to ambulance attendants impose prohibitive costs on independent or private providers of ambulance service, and

Whereas, This makes it financially impossible to provide ambulance service in all of the less densely populated areas of the State and essentially denies ambulance service to every community of less than 85,000, and

Whereas, Many presently operating ambulance services are being discontinued, therefore be it

Resolved, That the MSMA be empowered to institute immediate or timely communication urging gubernatorial action to include in his agenda for a special session of the legislature an action plan to provide adequate ambulance service—possibly by establishing and funding state ambulance districts.

(Referred to the Reference Committee on Resolutions)

There being no further business, the Speaker adjourned the Second Session of the House of Delegates with the announcement that the Annual Meeting of the Missouri State Medical Foundation would be held immediately following adjournment.

THIRD SESSION

Sunday, March 23, 1969

The Third Session of the MSMA 111th House of Delegates was called to order by the Speaker, Dr. Paul Max, at 7:30 AM in the Chase Club following a breakfast. Dr. Max Franklin, Chairman of the Committee on Credentials, reported the presence of a quorum. With unanimous consent, the Speaker dispensed with a roll call and the reading of the minutes of the two previous sessions.

President David N. Kerr expressed appreciation for the cooperation he had received during his term of office and commended Dr. Richard Yore and his Committee for the excellent program which they had presented at the 111th Annual Session.

Dr. Hubert Ritter, Chairman of the Nominating Committee, was invited to present the report of his committee.

NOMINATING COMMITTEE

The Nominating Committee met in the English Room of the Chase Hotel at 6 PM on March 21, 1969. All members of the Committee were present with the exception of Dr. John K. Legan of Kennett. The Committee submits the following slate of nominees for approval by the Association.

Vice-President—Dr. Walter W. Tillman, Springfield
Vice-President—Dr. Dillard M. Eubank, Raytown
Vice-President—Dr. Charles H. Lewellen, Louisiana
AMA Delegate—Dr. Hector W. Benoit, Jr., Kansas City
Alternate AMA Delegate—Dr. Hugh E. Stephenson, Jr., Columbia
AMA Delegate—Dr. Arthur W. Neilson, St. Louis
Alternate AMA Delegate—Dr. Robert W. Kelley, St. Louis
Alternate AMA Delegate—Dr. Rae W. Froelich, Lebanon (to fill unexpired term of the late Dr. Thompson E. Potter)
Speaker of the House—Dr. Paul F. Max, St. Louis

Vice-Speaker of the House—Dr. E. D. Imes, Maryville

Mr. Speaker, I move the adoption of this report.

The Speaker invited additional nominations from the floor. Hearing none, he entertained a motion that nominations cease and that a unanimous ballot be cast for the slate as presented by the Nominating Committee. The motion was seconded and carried.

Dr. John I. Matthews, Secretary, announced that the following Councilors had been elected for two-year terms:

Dr. Lysle M. Bach, Second District
Dr. Robert A. Mayer, Fourth District
Dr. W. D. Bradshaw, Sixth District
Dr. Howard J. McAlhany, Eighth District
Dr. Eugene T. Hansbrough, Tenth District

The Speaker called for additional reports of the References Committees.

The Speaker asked Dr. Robert W. Forsythe, chairman, to present the additional report of the Committee on Constitution and Bylaws.

CONSTITUTION AND BYLAWS

The Reference Committee on Constitution and Bylaws met on March 21, 1969 in the Palladian Room of the Chase Park Plaza Hotel in St. Louis, Mo. It convened at 6 PM and adjourned at 6:55 PM. All members were present.

Resolution—Medical Professional Liability Insurance

The Committee recommends approval of the resolution presented by Dr. Sciotino and Dr. Neilson regarding Medical Professional Liability Insurance.

Mr. Speaker, I move this portion of the report be adopted.

(The motion was seconded and carried.)

Resolution—Health Center Programs

The resolution presented by Dr. John Dixon of Grand River Medical Society relating to the establishment and the administering of health centers was amended by the Committee to read as follows:

Resolved, That the House of Delegates of the MSMA express disapproval of establishment of health centers unless such is approved by action of the local medical society or societies involved, and further, that such local societies may wish to approve such centers only with the provision of medical representation on the governing board of such centers.

Mr. Speaker, I move the adoption of this resolution as amended.

(The motion was seconded and passed. The motion to adopt the report as a whole was seconded and passed.)

Dr. Charles S. Sherwin, Chairman, was invited to give the additional report of the Reference Committee on Resolutions.

RESOLUTIONS

The second session of the Reference Committee on Resolutions was held in the Colonial Room of the Chase-Park Plaza Hotel at 6:15 PM on March 21, 1969, with all members present.

The resolution from the Joint Committee on Emergency Medical Services of the St. Louis Medical Society and the St. Louis County Medical Society regarding ambulance service for the indigent was amended as follows:

Resolution—Ambulance Service for the Indigent

WHEREAS, The State of Missouri has seen fit to subsidize a part of the cost of the medical care of the indigent peoples of this state through the Medicaid Program, and

WHEREAS, Proper transportation of the sick and injured may be considered as an essential in their medical management, now be it

Resolved, That this convention of the MSMA go on record to suggest to the Division of Welfare of the State of Missouri that payment be made under the Medicaid Act to the providers of emergency ambulance services for trauma and other bona fide emergency medical problems, for the indigent; the fees for this service to parallel those of the Federal Medicare Program.

This resolution, as amended, was unanimously approved by the Reference Committee on Resolutions.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

The Reference Committee on Resolutions felt that the resolutions of the Joint Committee on Emergency Medical Services of the St. Louis Medical Society and the St. Louis County Medical Society and the Clay County Medical Society regarding a statewide program for emergency medical services bore a similar impact and the two resolutions were combined and amended as follows:

Resolution—Emergency Medical Services

WHEREAS, Every year, 20,000 people in the United States lose their lives unnecessarily because of inadequate emergency rescue services to care for accident victims (many in this state), and

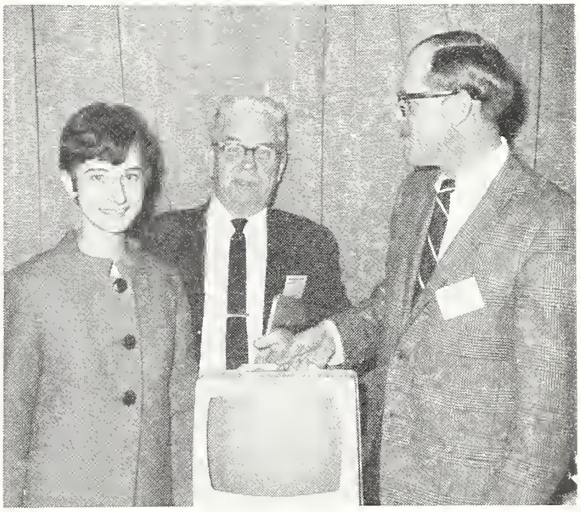
WHEREAS, Many communities of this state have no available rescue services or inadequate rescue facilities, and

WHEREAS, Current federal wage-hour laws that apply to ambulance attendants impose prohibitive costs on independent or private providers of ambulance service, and

WHEREAS, This makes it financially impossible to provide ambulance service in all of the less densely populated areas of the state and essentially denies ambulance service to every community of less than 85,000, and

WHEREAS, The National Highway Safety Act requires the state to develop satisfactory programs for emergency medical services, and

WHEREAS, The Medical Center of the University of Missouri



Physicians attending the Annual Session were invited to register at the Exhibitors' Booths for two free portable TV sets which were awarded as attendance prizes. Miss Mary Lee Stephens accompanied her father, Dr. L. J. Stephens of St. Louis to receive the Friday prize from Royal O. Cooper, MSMA Field Secretary. Dr. Truman B. Shertz, Kansas City, won the TV set that was awarded Saturday.

and the Emergency Medical Services Committee of the MSMA (Committee on Disaster Medical Care and National Defense and Committee on Trauma) and various county medical societies are concerned about this lack of proper equipment and personnel, now be it

Resolved, That the Council of the MSMA be empowered to institute immediate or timely communication to the Governor and the legislators of the state, bringing those areas of concern to their attention and urging consultation with these interested bodies, including the medical societies, medical schools and medical agencies of this state, public and private, aimed at development of a comprehensive plan for the provision of adequate emergency ambulance services on a statewide basis, possibly by establishing and funding ambulance districts.

This resolution, as amended, was unanimously approved by the Reference Committee on Resolutions.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Mr. Speaker, I move the adoption of this report in its entirety.

(The motion to adopt was seconded and passed.)

This concluded the reports of the Reference Committees.

Dr. Glover then presented the following Amendment to the Bylaws for action by the House:

AMENDMENT TO SECTION 1, CHAPTER VIII, BYLAWS

Amend Chapter VIII, Section 1, on page ten of the Bylaws 1968 Revision, by striking out the figures in Line 2, "$52.50," and inserting in lieu thereof the figure, "$65.00."

(The motion to adopt was seconded and passed.)

At this time, the Vice-Speaker invited nominations from the floor for the office of President-Elect. Dr. John N. Martin nominated Dr. Joseph L. Fisher of St. Joseph. The nomination was seconded by Dr. Byron W. Stuart; Dr. Hubert Ritter, who represented the St. Louis Medical Society; and Dr. Paul Whitener. There being no additional nominations, a motion was made and seconded that the nominations cease and Dr. Fisher be elected by acclamation. The motion carried. The new President-Elect was escorted to the Speaker's stand where he made a brief acceptance statement.

Dr. Bass of Salem called the attention of the House to a resolution approved during the 1968 Annual Session calling for a breakdown of the expenditures of Part 18 (b) of the Medicare Law. He said that he has not seen any such information published, but felt that such information should be made available to physicians as well as to the general public since the Missouri State Medical Association had exerted itself at great length to see that the monies of this state and this nation were expended wisely.

He also pointed out that even in such an austere program as Medicaid, the physician's fee represents only a small fraction of the total cost. Dr. Bass said that Dr. Rae Froelich and others with whom he had talked had said that the Medicaid figure for physicians would be about 20% of the total cost.

Dr. Bass said that he had reason to believe that under the Medicare Program, the physician's part is going to run well under the 50% figure.

Mr. Bob Carroll of the MSMA staff said that contacts had been made seeking the figures which the resolution had requested, but that conversations with General American Insurance Co. and some of the other intermediaries, as well as with the federal agencies involved, had failed to produce the needed information. He said that he had been told that there is no breakdown of figures to show the facts about Medicare which were asked in the resolution.

Mr. Carroll said that Mr. Proctor Carter of the Missouri Division of Welfare had been cooperative, would soon make figures on the Medicaid program available and that physicians payments under Medicaid would be below the 20% mark.

Dr. Hibbard of Kansas City said that he knew of no contact having been made with Kansas City Blue Shield on whose board he served. Mr. Carroll said that Kansas City Blue Shield had not been contacted directly after the Regional Office of the Social Security Administration had made the positive statement that no such breakdown was available on Part B of Title 18.

Dr. Bass mentioned that he had asked General American what services are paid for under the so-called medical part of Medicare. He said such payments were for outpatient hospital, for oral surgery, for ambulances and for home health services.

Dr. Bass added that physicians should be very interested in home health care spending. He said that he had learned that a visiting nurse in his area charged $13.00 to Medicare for house calls.

Dr. Bass said there also were other things being paid for by Part B of Title 18 and these facts should be brought to the public's attention. In closing, he said the matter deserves attention and he hoped we could have definite action.

The Speaker called for new business.

At the request of Dr. George D. Shull, it was moved that the rules be suspended for the introduction of a laudatory resolution from the Fifth Councilor District.

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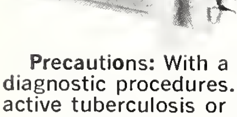

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MSMA President-Elect Joseph L. Fisher, Immediate Past-President David N. Kerr, President Doyle C. McCraw and newly-elected Council Chairman Gerald L. Miller review actions taken by the 1968-1969 House of Delegates and discuss plans for the new MSMA year.

The motion was seconded and received unanimous approval.

Resolution Honoring M. Pinson Neal, M.D.

Dr. Shull introduced the following resolution:

Whereas, The Membership of the Missouri State Medical Association recognizes that the evening shadows are lengthening upon the life of one of their distinguished colleagues, and

Whereas, This distinguished physician, teacher and tireless worker for the Missouri State Medical Association has earnestly endeared himself to his legions of friends and former students, and

Whereas, His ideals, principles and devotion to his profession and its members has favorably influenced the life of physicians throughout the United States, and

Whereas, This body assembled wishes to express its sincere gratitude and esteem for this distinguished elder statesman of medicine, be it therefore

Resolved, That the Missouri State Medical Association at its 111th Annual session in St. Louis, Missouri, on the 23rd day of March, 1969, does hereby take this opportunity to recognize the outstanding services and contribution of M. Pinson Neal, M.D., to the medical and teaching profession, and be it further

Resolved, That a copy of this resolution be duly signed by the President, Secretary and Councilors of the Missouri State Medical Association and forwarded to Dr. M. Pinson Neal with the best wishes of the membership of the Missouri State Medical Association.

Mr. Speaker, I move the adoption of this resolution by the House of Delegates.

The resolution was adopted by a unanimous vote and Dr. M. Pinson Neal was given a standing ovation. He spoke briefly in appreciation of the resolution in his honor.

There being no further new business, the Speaker invited the Officers and Councilors to come to the front of the room where the Association Secretary, Dr. John I. Matthews, administered the oath of office.

The President, Dr. Doyle C. McCraw, was invited to announce his committee appointments for the 1969-1970 year. Committee members whose terms had not expired were not mentioned and it is assumed they will continue to serve.

Scientific and Postgraduate Work—Richard W. Yore, St. Louis, Chairman; John I. Matthews, Jefferson City; J. F. McDonnell, Kansas City. *Associate Members:* E. D. Imes, Maryville; Glenn O. Turner, Springfield; W. Thomas Morgan, West Plains; Paul H. Rother, St. Charles; Charles P. McGinty, Cape Girardeau; Paul R. Young, Kansas City; Roy Pearse, Nevada; T. J. Fisher, Hannibal; Richard V. Camp, Jr., Poplar Bluff.

Medical Defense—W. W. Gist, Kansas City, Chairman; Max S. Franklin, St. Louis.

Medical Education and Hospitals—Ralph R. Hall, Kansas City, Chairman. *Associate Members*—Willard M. Allen, St. Louis; Aaron D. Freedman, Kansas City; Richard Craig, St. Joseph; Daniel Sexton, St. Louis; John A. Nuetzel, St. Louis; Roger Nelson, St. Louis.

Medical Economics—H. C. Wiegand, St. Louis, Chairman; W. Joel Wurster, Kansas City; W. J. Ferguson, Sikeston. *Associate Members*—Gene A. Schillie, Kansas City; David G. Hall, Columbia; Avery P. Rowlette, Moberly; Frank O. Richards, St. Louis; Charles Miller, Jr., Kirkwood; H. G. Parker, Platte City; Miles Whitener, St. Louis County; W. W. Tillman, Springfield; Donald H. Giesler, Osceola.

Cancer—E. J. Schewe, Columbia, Chairman; Jose M. Sala, Springfield. *Associate Members*—Ben H. Koon, Bolivar; C. W. Blackwell, Columbia; Arthur B. Smith, Kansas City; Eugene T. Hansbrough, Poplar Bluff; William L. Drake, Jr., St. Louis; Stuart Exon, Jefferson City; James F. Dowd, Jr., St. Louis.

Maternal Welfare—William B. See, Columbia, Chairman; Walter German, Springfield. *Associate Members*—C. G. Stauffacher, Sedalia; Edward M. Grim, Kirksville; William M. Walker, Springfield; Edmund W. Kline, St. Joseph; Paul E. Kratz, Cape Girardeau; Thomas H. McGuire, Kansas City; William F. McGinnis, St. Louis; Paul Max, St. Louis; Melvin M. Schwartz, St. Louis County; Harry Langelottig, Nevada; Robert A. Slickman, Kansas City.

Infant and Child Care—Guy N. Magness, University City, Chairman; E. J. Schwartz, Springfield; James K. Mann, Hannibal; F. G. Thompson, III, St. Joseph; Francis X. Lieb, St. Louis; James A. Kinder, Cape Girardeau; W. B. Avery, Boonville; James Burkcholder, Sedalia; Barbara E. Russell, Rolla; Richard Blim, Kansas City. *Associate Members*—C. Read Boles, Clayton; Raymond J. LaDriere, St. Louis; Marvin Bordy, Kansas City; Harold Adams, Columbia; Juliette M. Eliscu, Joplin.

Mental Health—James N. Haddock, St. Louis, Chairman; H. V. Guhleman, Jefferson City; Paul W. Hayes, St. Joseph; Robert S. Terrill, Kansas City; Marie Mowrer, St. Louis; D. R. Edwards, Sedalia; Johannes F. Hulstra, Springfield; Paul L. Barone, Nevada; Edward T. Auer, St. Louis; Harold D. Wolff, St. Louis. *Associate Members*—Robert D. Brookes, St. Louis; Charles B. Wilkinson, Kansas City; Carleton J. Lindgren, Kansas City; Edmund V. Cowdry, Jr., St. Louis.

Constitution and By-Laws—Kenneth C. Hollweg, Kansas City, Chairman; W. A. Bloom, Fayette.

Control of Venereal Disease—Edwin M. Powell, Springfield, Chairman; John Martin, St. Joseph. *Associate Members*—J. H. Schmidt, Jefferson City; George H. Rodgers, Kansas City.

Trauma—E. M. Dillard, Springfield, Chairman; Wilbur P. McDonald, St. Joseph; J. Otto Lottes, St. Louis. *Associate Members*—Carl M. Peterson, Kansas City; Garth Russell, Columbia; John L. Barnard, Jr., Kansas City; W. Edward Lansche, St. Louis; Edwin E. Carter, Clayton; John Legan, Kennett; Frank Tull, Sikeston.

Eye Health—Flavius G. Pernoud, St. Louis, Chairman; W. H. Lewin, St. Louis. *Associate Members*—Calvin Curts, Kansas City; D. E. Eggleston, Macon; Jack Hartstein, University City; George Mandler, Chillicothe; H. B. Stauffer, Jefferson City; Bill G. Prater, Springfield; Wilber B. Spalding, Jr., Kansas City; Paul W. Miles, St. Louis; Paul Beck, St. Joseph; Edward Plowman, Hannibal.

Diabetes Mellitus—Harold K. Roberts, St. Louis, Chairman; H. E. Oppenheimer, St. Louis. *Associate Members*—William H. Olmsted, St. Louis; Harold Ridings, Cape Girardeau; C. C. Cohrs, Moberly; Robert Mosser, Kansas City; Harvey Walker, Jr., St. Louis; Mary McCaffree, St. Joseph.

Anesthesiology—Kenneth Keown, Columbia, Chairman; James S. Gordon, Jefferson City; Karl K. Ness, St. Joseph. *Associate Members*—John P. Eberle, St. Louis; George R. Weeks, Cape Girardeau; Robert B. Dodd, St. Louis; Gordon F. Wise, Springfield; Timothy Dalton, Kansas City; Ira Hubbell, Columbia.

Disaster Medical Care and National Defense—John T. Crowe, Cape Girardeau, Chairman; Michael Clark, Springfield; Richard Gunn, Kansas City; William F. Bell, Lee's Summit; Durand Benjamin, St. Louis; Ned B. Chase, Jr., Joplin; Allen P. Klippel, Clayton; O. P. Hampton, St. Louis; Joseph P. Russell, Jefferson City; Robert B. Young, Rolla; Thomas B. Cook, Richmond; W. Alexander Hoja, Poplar Bluff; John L. Mothershead, St. Joseph; Louis P. Hetlage, Troy; Marshall B. Conrad, St. Louis; H. M. Hardwicke, Ashland.

Physical Medicine and Rehabilitation—Edward B. Shires, Kansas City, Chairman; John W. Deyton, St. Louis. *Associate Members*—Frank R. Williams, Kansas City; James T. Leslie, Jr., Jefferson City; Hugh Chaplin, Jr., St. Louis.

Aging—Robert H. Tanner, Jefferson City, Chairman; William A. Slentz, Kansas City; Norman P. Knowlton, Jr., St. Louis. *Associate Members*—Haywood Jackson, Kansas City; William Leightner, St. Louis; Logan Mayfield, Crystal City; C. A. Nester, St. Louis; Owen W. D. Craig, St. Joseph; Robert C. Kingsland, St. Louis County.

Radiology and Ionizing Radiation—D. D. Anthony, Springfield, Chairman; Harold B. Rapp, Cape Girardeau. *Associate Members*—Sidney Ruben, Kansas City; Joseph S. Summers, Jr., Jefferson City; Marvin F. Hall, Joplin; Victor Jones, St. Louis County.

Alcoholism—Joseph B. Kendis, St. Louis, Chairman; Max Teare, Kansas City; Evelyn Griffin, Buffalo; Tom R. Burcham, Jr., Farmington; Kathleen Smith, St. Louis; Kenneth Glover, Mount Vernon.

Industrial Health—Richard A. Sutter, St. Louis, Chairman; John W. Berry, St. Louis. *Associate Members*—Horace A. Lowe, Jr., Springfield; C. R. McAdam, St. Louis; Grosvenor G. Roberts, Kansas City; Howard Adams, Liberty; Robert Lanning, Hannibal.

Medical-Legal—Lee T. Ford, Jr., St. Louis, Chairman; Irvin H. Clark, Kansas City; Lysle M. Bach, Hannibal; Jerome Simon, St. Louis; Daniel L. Yancey, Springfield; Ned D. Rodes, Mexico; Frederick J. McCoy, Kansas City.

Nursing and Paramedical Personnel—John H. Walters, Columbia, Chairman; Edward Beheler, St. Joseph; Joseph Cope, Lexington; James M. Flynn, Kansas City; A. J. Signorelli, St. Louis. *Associate Members*—R. Stacy Long, Kansas City; John R. Esther, Joplin; Roy Gillispie, Branson.

Rural Medical Service—Charles A. Worley, Sweet

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Springs, Chairman; B. J. Bass, Salem; O. W. Cook, Caruthersville; James H. Sweiger, Plattsburg; Leopold Lachance, Centralia; Robert Moellenhoff, Washington; Paul Hilton, Kirksville; T. M. Macdonnell, Marshfield; James Hasek, Mountain Grove; Edward K. Jackson, Clarksville.

Study of Cardiac Disease—Jack S. Sanders, Jefferson City, Chairman; James G. Janney, St. Louis; William J. Shaw, Sr., Fayette; R. E. Stufflebaum, Springfield; Jack M. Martt, Columbia; Keith H. Averill, Kansas City; V. L. Willman, St. Louis; Don J. Stallard, St. Joseph; David V. Miller, Poplar Bluff; Joseph C. Edwards, St. Louis; J. Tenbrook King, Kansas City; Morris Alex, St. Louis; James M. Myers, Rolla.

Tuberculosis—F. E. MacInnis, Kansas City, Chairman; Paul Murphy, St. Louis; William J. Gillespie, St. Louis; Robert G. Muth, Kansas City; William A. Werner, St. Louis; Alan H. Bailey, Springfield; Sheldon B. Beecher, Poplar Bluff; Judson I. Chalkley, Columbia; C. A. Brasher, Mount Vernon; L. P. McCann, Nevada; Robert E. Dunshee, Maryville.

Environmental Health—A. W. Neilson, St. Louis, Chairman; E. A. Stricker, St. James; Paul T. Luckenbill, Plattsburg; Peter H'Doubler, Springfield; Lloyd A. Hollinger, Kansas City; Carl Marienfeld, Columbia; Thomas J. Fischer, Hannibal.

Public Service—To be announced.

Laboratory Medicine—Omer E. Hagebusch, St. Louis, Chairman; Henry C. Allen, Clayton; Richard V. Riddell, St. Joseph. *Associate Member*—Noel R. Lewis, Springfield.

Legislative—John I. Matthews, Jefferson City, Chairman; Walter Gunn, St. Louis; Joseph L. Fisher, St. Joseph; Gerald C. Miller, Kansas City; Doyle C. McCraw, Bolivar. *Associate Members*—Loren Washburn, Versailles; Arthur Neilson, St. Louis; Hector W. Benoit, Jr., Kansas City; Stanley S. Peterson, Springfield; William E. Powers, St. Louis.

The Speaker requested an invitation for the meeting place of the next Annual Session of the Association.

Dr. Edward H. Stratemeier, President of Jackson County Medical Society, invited the Association to hold the 1970 Annual Session in Kansas City. The invitation was accepted.

The Speaker announced that the next Annual Session of the Missouri State Medical Association will be held on April 2-5, 1970 at the Muehlebach Hotel in Kansas City.

There being no additional business, the Speaker declared the 1969 Annual Session adjourned.

"All's well that ends well!" Immediate Past-President David N. Kerr *(left)* and MSMA Treasurer Max S. Franklin *(right)* pose with the "girls" from the Jefferson City MSMA Headquarters Office following the Presidents' Banquet Saturday evening. They are *(front row, left to right)* Mrs. Rose Mahon, secretary; Mrs. "Bert" Thomas, secretary and office manager; and Mrs. Ruth Pack, secretary. *(Second row, left to right)* Mrs. Lorraine Chruma, secretary; Miss Jean Duensing, managing editor of Missouri Medicine; and Mrs. Wilma Sperry, bookkeeper. This happy group provided the working staff for the Annual Session and handled the convention registrations, secretarial duties, emergency phone calls, etc., etc., etc.

—Photo Courtesy of Hollister S. Smith, St. Louis Medical Society

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Missouri State Medical Association

112th ANNUAL SESSION

April 2-5, 1970

Hotel Muehlebach Kansas City

REGISTRATION AT THE 111TH ANNUAL SESSION

First Councilor District—30

Allain, J. J., N. Kansas City
Allen, E. Warren, Carrollton
Atcheson, Windsor B., Trenton
Baker, Warren C., Savannah
Bohnsack, R. W., Brookfield
Bowles, Richard P., Liberty
Butler, E. F., St. Joseph
Conrad, Joseph, Chillicothe
Dixon, John R., Brookfield
Dowell, Donald M., Chillicothe
Dunshee, R. E., Maryville
Fisher, Joseph L., St. Joseph
Gilliland, C. E., Cameron
Goldberg, I. E., Braymer
Gunter, Joe S., St. Joseph
Hayes, Paul W., St. Joseph
Imes, E. D., Maryville
King, Phillip E., Liberty
Luckenbill, P. T., Plattsburg
McPhee, W. R., N. Kansas City
Martin, John, St. Joseph
Matteson, Frank B., Grant City
Riddell, Richard V., St. Joseph
Robichaux, Eugene B., Excelsior Springs
Rost, William B., St. Joseph
Schertz, Truman B., N. Kansas City
Tovar, Manuel, St. Joseph
Vinyard, Jack L., Carrollton
Wadlow, Ernest E., St. Joseph
Williams, R. D., Smithville

Second Councilor District—18

Bach, Lysle, Hannibal
Barnett, Floyd A., Paris
David, Landis Y., Canton
Fischer, Thomas J., Hannibal
Fleming, J. Will, Moberly
Foreman, Phillip B., Hannibal
Freeman, Spencer L., Kirksville
Grant, Albert J., Hannibal
Harms, F. L., Salisbury
Lanning, Robert J., Hannibal
Lewellen, Charles H., Louisiana
Middleton, John W., Louisiana
Plowman, Edward M., Hannibal
Rowlette, Avery P., Moberly
Streetor, R. D., St. Louis
Szymanski, Stanley R., Macon
Thompson, Robert V., Moberly
Waltersheid, John, Hannibal

Third Councilor District—208

Allen, Henry C., Clayton
Allen, Willard M., St. Louis
Allen, William E., Jr., St. Louis
Banet, S. R., St. Louis
Barden, F. W., St. Louis
Barner, Hendrick, St. Louis
Bartlett, Robert W., St. Louis
Bartnick, Mitchel L., St. Louis
Baumgarten, Walter, St. Louis
Belew, Joe E., St. Louis
Bell, Robert M., St. Louis
Bergman, Hugh, St. Louis
Berry, John W., Clayton
Biller, Hugh, St. Louis
Bockelman, C. H., St. Louis
Boldizar, A. G., St. Louis
Bolton, Robert, St. Louis
Bowen, S. F., Jr., St. Louis
Brady, Harry R., St. Louis
Broun, G. O., Jr., St. Louis
Bruce, Helen L., St. Louis
Bryan, James H., Clayton
Burkhart, Charles A., St. Louis
Casey, E. J., St. Louis
Chou, Yen Ping, Koch
Clark, Clarence L., Creve Coeur
Comerci, George, Kirkwood
Conrad, Marshall B., St. Louis
Cooper, T. J., St. Louis
Corday, Robert, St. Louis
Costello, Cyril, St. Louis
Danis, Peter C., St. Louis
Davis, Martin, St. Louis
Devine, John B., St. Louis
Donati, Robert M., St. Louis
Dorton, Robert K., Clayton
Doyle, C. R., St. Louis
Drews, Robert C., Clayton
Edwards, Joseph C., St. Louis
Eimer, Charles E., St. Louis
Ernst, Richard E., St. Louis
Fallon, Richard, St. Louis
Felix, Robert H., St. Louis
Ferguson, Thomas B., St. Louis
Finnegan, Joseph V., St. Louis
Fischer, Erich, University City
FitzGerald, Leo P., St. Louis
Ford, Lee T., St. Louis
Fox, Robert E., St. Louis
Franklin, Max S., St. Louis
Frawley, Thomas F., St. Louis
Frederick, R. O., St. Louis
Friedman, Paul L., St. Louis
Fried, Armand D., St. Louis
Funsch, Robert E., St. Louis
Gaffney, Caldwell J., St. Louis
Gandlmayr, Jack M., St. Louis
Geise, August W., St. Louis
Goldman, Melvin, St. Louis
Green, William R., St. Louis
Grindon, J. B., St. Louis
Gulick, Charles R., St. Louis
Gunn, Walter T., St. Louis
Haddock, James N., Clayton
Hagan, Daniel J., St. Louis
Harell, Alex, St. Louis
Hartwig, John A., St. Louis
Hawkins, George L., Jr., St. Louis
Haynes, Pugh, Jr., St. Louis
Hickey, James L., St. Louis
Hilbert, Paul H., St. Louis
Hill, XaCadene A., St. Louis
Hofstatter, Leopold, St. Louis
Holbrook, C. K., St. Louis
Hollo, Vencel W., St. Louis
Hosto, Leland E., St. Louis
Johnstone, John, Jr., Kirkwood
Jones, Augustin, St. Louis
Jones, James H., St. Louis
Jones, Otey S., St. Louis
Jordan, Walter R., Barnhart
Jost, Charles, St. Louis
Joyer, Robert M., St. Louis
Judd, Donald, St. Louis
Kaiser, G. C., St. Louis
Karandjeff, A. D., St. Louis
Kelley, Robert W., St. Louis
Kerr, David Nafe, Clayton
Kienzle, E. C., St. Louis
Kinsella, Edward D., St. Louis
King, John V., Webster Groves
Kneal, Ellsworth, St. Louis
Knight, William A., St. Louis
Koenig, Marvin, St. Louis
Kolker, Allan E., St. Louis
Kramolowsky, H. H., St. Louis
Ladd, Charles B., St. Louis
Lane, Clinton, St. Louis
Lawton, John T., Clayton
Lawton, L. M., St. Louis
Lederman, Joseph, St. Louis
Lee, James B., St. Louis
Leib, Francis X., St. Louis
Link, Alexander J., St. Louis
Loeffel, Ellen S., St. Louis
Lonsway, Maurice J., St. Louis
Lottes, J. Otto, St. Louis
Lowenstein, Paul S., St. Louis
McCool, Stanley G., St. Louis
Macdonald, William C., St. Louis
Macon, William L., Jr., St. Louis
Maher, T. F., St. Louis
Malles, A. Conrad, St. Louis
Mannis, Ben G., St. Louis
Max, Paul F., St. Louis
Melick, W. F., St. Louis
Menendez, Manuel F., St. Louis
Merenda, Sam J., St. Louis
Meyer, Melvin E., St. Louis
Miksicek, John E., St. Louis
Milster, Clyde, St. Louis
Monafo, William, Kirkwood
Morris, M. E., St. Louis
Mountjoy, Grace I., Clayton
Muether, R. O., St. Louis
Murphy, James P., St. Louis
Muschany, Norman K., St. Louis
Myers, Ivan T., St. Louis
Neilson, Arthur W., St. Louis
Nester, C. A., St. Louis
Neun, W. F., St. Louis
Newman, Percy, St. Louis
Nicolai, Charles H., St. Louis
Ogura, Joseph H., St. Louis
Olmsted, W. H., St. Louis
O'Neal, L. W., St. Louis
Orenstein, Joseph M., St. Louis
Payne, Meredith, St. Louis
Pennington, F. E., St. Louis
Perkoff, Gerald T., St. Louis
Pernoud, F. G., Clayton
Potter, Reese H., St. Louis
Powell, Earl A., St. Louis
Powers, William E., St. Louis
Probstein, J. G., St. Louis
Pruett, Burchard S., St. Louis
Reich, H. A., St. Louis
Reinhard, Edward H., St. Louis
Ring, Edward, St. Louis
Ritter, H. A., St. Louis
Roche, Maurice B., St. Louis
Rosenbaum, Herb., St. Louis
Rosenfeld, Henry, St. Louis
Roth, John J., St. Louis
Rusan, T. E., St. Louis
Salanga, P. B., St. Louis
Samad, Isa A., St. Louis
Sauer, W Nicholas, St. Louis
Schuessler, W. P., St. Louis
Schweiss, John F., St. Louis
Sciortino, John S., St. Louis
Sertl, John, St. Louis
Sexton, Daniel, Clayton
Shackelford, H. H., St. Louis
Shah, Anwar, St. Louis
Shaw, Edward J., St. Louis
Shelton, Earl W., St. Louis
Shen, Jerome, St. Louis
Sherard, J. C., St. Louis
Sherwin, Charles S., St. Louis
Signorelli, A. J., St. Louis
Simon, David L., St. Louis
Simon, Jerome, St. Louis
Sims, William A., Jr., St. Louis
Skeffington, Mary Jane, St. Louis
Sly, William, St. Louis
Smiley, William, St. Louis
Smith, Robert S., St. Louis
Soule, S. D., St. Louis
Spitz, Richard H., St. Louis
Steinberg, Franz U., St. Louis
Stephens, LeRoy J., St. Louis
Stoneman, William, III, St. Louis
Stolar, Jacob, St. Louis
Strauss, Arthur E., St. Louis
Stroud, Malcolm, St. Louis
Taveras, Juan, St. Louis
Thoma, G. E., St. Louis
Tjoflat, O. E., St. Louis
Tucker, Eugene, St. Louis
Turner, C. M., St. Louis
Utley, James H., St. Louis
Vacca, Joseph B., St. Louis
Wacker, Leo L., St. Louis
Walter, K. E., St. Louis
Walton, Franklin E., St. Louis
Weyerich, L. F., St. Louis
Whittico, James M., St. Louis
Wiegand, Herbert C., St. Louis
Williams, Carol F., St. Louis
Winter, John, Creve Coeur
Wirthlin, E. H., St. Louis
Wolff, Ray J., Clayton
Woodbridge, John H., St. Louis
Yang, Jae H., St. Louis
Yore, Richard W., St. Louis
Zillgitt, George H., St. Louis
Zwart, C. H., St. Louis

Fourth Councilor District—104

Bailey, W. H., St. Louis
Baker, Donald L., Union
Balster, V. H., St. Louis
Bergmann, Martin, St. Louis
Berwald, Irwin I., St. Louis
Birenbaum, Aaron, St. Louis
Boles, C. Read, Clayton
Bonney, S. C., Washington
Brenner, Paul A., Owensville
Burstein, Robert, Clayton
Cacioppo, J. E., St. Louis
Canty, E. J., St. Charles
Carranza, Mauro J., Hillsboro
Carrier, John A., St. Louis
Catanzaro, Rudolph E., Ladue
Coldwater, K. B., St. Louis
Commerford, J. F., St. Charles
Costrino, J. A., St. Louis
Cowdry, Edmund V., Jr., St. Louis
Crawford, Robert M., Sullivan
Cutler, Harry, St. Louis
Davis, Ed., St. Louis
Deles, Vincente, Crystal City
Diehr, M. A., St. Louis
Drum, Helen Aff, St. Louis
Eidelman, Jack R., St. Louis
Eller, C. Howe, St. Louis
Emerson, R. L., Brentwood
Estes, J. M., St. Louis
Falk, O. P. J., Clayton
Farrell, Sam L., Washington
Finkel, Barney W., St. Louis
Freiheit, H. J., St. Louis
Gitt, John, St. Louis
Gollub, Sam, St. Louis
Goodman, Nathaniel, St. Louis
Griffith, John K., Arnold
Hammes, R. E., St. Charles
Hetlage, Louis P., Troy
Hoelscher, Harold, Warrenton
Hughes, Robert G., St. Louis
Izmirlian, Grant, Webster Groves
Jotte, Richard, St. Louis
Judge, W. T., Crystal City
Keller, R. M., Wentzville
Kendis, Joseph B., St. Louis
Kilker, Clarence H., St. Louis
Kimelman, Nathan, St. Louis
King, E. E., Ferguson
Kingsland, Robert C., Clayton
Klippel, Allen P., Clayton
Kopp, Jules H., St. Louis
Kurth, R. K., St. Louis
Kuttner, Marianne, University City
Lewin, W. Howard, St. Louis
McNalley, F. P., St. Louis
Magness, Guy N., University City
Margolis, Richard, St. Louis
Martz, John C., Kirkwood
Mattis, Robert Dean, St. Louis
Mayer, Robert A., Clayton
Mayfield, J. L., Crystal City
Miles, Paul W., St. Louis
Miller, Charles, Jr., Kirkwood
Moellenhoff, R. W., Washington
Montes-de-Oca, Julio, Clayton
Mowrer, Marie O., Creve Coeur
Mullarky, W. A., St. Louis
Nakada, James R., Clayton
Oglesby, Richard B., Clayton
Pawol, S. E., Bridgeton
Perna, Vincent P., St. Louis
Rice, Carl E., Hillsboro
Richardson, George A., Union
Richardson, Thomas F., Clayton
Richardson, William R., Union

Roblee, Melvin A., St. Louis
Rohlfing, Edwin H., St. Louis
Rother, Paul H., St. Charles
Rubin, Robert, Ferguson
Rutledge, John F., Festus
Schmidt, Charles A., Gerald
Schwartz, M. M., St. Louis
Sisk, James, St. Louis
Skilling, David M., Jr., St. Louis
Smoller, Martin, St. Louis
Steiner, A. J., St. Louis
Sterling, John A., St. Louis
Strehlman, B. G., Union
Sutter, Richard A., St. Louis
Tashma, Sigmund, St. Louis
Teiber, Fred W., St. Louis
Torin, Bernice, University City
Vatterott, Paul B., St. Louis
Vitale, Anthony J., St. Louis
Vitale, Nicholas S., St. Louis
Weber, Sol, Clayton
Whitener, Miles C., St. Louis
Whitener, Paul R., St. Ann
Wipfler, E. J., Jr., St. Charles
Workman, George, Hermann
Wulff, George, St. Louis
Wyatt, Lois C., Kirkwood
Yap, Mardonio J. R., Chesterfield

Fifth Councilor District—74

Allen, W. C., Columbia
Almond, Carl, Columbia
Amlinger, P. R., Columbia
Asel, N. D., Columbia
Baker, A. Sherwood, Columbia
Baker, James M., Columbia
Belden, E. A., Jefferson City
Bloom, W. A., Fayette
Bradley, William W., Centralia
Bregant, Robert E., Jefferson City
Buesseler, John A., Columbia
Bumgarner, Roger W., Columbia
Bynum, William R., Columbia
Cartwright, Robert, Columbia
Cooper, Charles W., Jefferson City
Cope, J. C., Columbia
Durst, Henry, Fulton
Dwyer, Thomas L., Mexico
Ekern, H. Peter, Mexico
Exon, C. S., Jefferson City
Garner, L. M., Jefferson City
Gentry, M. L., Jefferson City
Guhleman, Henry V., Jefferson City
Handler, Fred P., Jefferson City
Hardwicke, H. M., Ashland
Hart, William M., Columbia
Holley, D. B., Camdenton
Ide, Carl H., Columbia
Johnson, R. E., Columbia
Jolly, Ben N., Mexico
Keown, Kenneth, Columbia
Landhuis, Leo R., Columbia
Lee, Yeu-Tsu N., Columbia
Lindberg, Donald, Columbia
Logue, John T., Columbia
Loyd, Earl L., Jefferson City
Marco, Philip J., Columbia
Marienfeld, Carl J., Columbia
Matthews, John I., Jefferson City
Mayer, William D., Columbia
Meinershagen, C. W., Jefferson City
Metzgar, Marshall T., Columbia
Mitchell, F. L., Columbia
Moranville, B. A., Columbia
Neal, M. Pinson, Columbia
Peterson, Donald B., Fulton
Pingelton, W. B., Columbia
Rikli, Arthur E., Columbia
Russell, J. P., Jefferson City
Sanders, J. S., Jefferson City
See, William B., Columbia
Senhauser, D. A., Columbia
Shull, G. Donald, Jefferson City
Sights, Warren P., Columbia
Smith, Grafton A., Columbia
Spratt, John S., Jr., Columbia
Stauffer, H. B., Jefferson City
Stephenson, Hugh E., Columbia
Stewart, William J., Columbia
Stoy, Robert P., Columbia
Stuart, Byron M., Boonville
Thomas, Horace E., Columbia
VanPeenen, H. J., Columbia
Wakerlin, G. E., Columbia
Walters, John H., Columbia
Walters, Laura, Columbia
Washburn, J. Loren, Versailles
Watson, Trevor, Columbia
Watts, B. E., Jefferson City
Wilson, George P., Columbia
Windmiller, M. E., Columbia
Wollschlaeger, Gertraud, Columbia
Wollschlaeger, Paul B., Columbia
Ziegler, A., Vandalia

Sixth Councilor District—28

Aiken, George, Marshall
Barone, Paul L., Nevada
Blalock, Robert W., Marshall
Boydston, Catherine, Odessa
Boydston, Wayne, Odessa
Bradshaw, W. D., Clinton
Brady, H. S., Concordia
Brazos, John C., Sedalia
Campbell, Albert J., Sedalia
Devault, G. K., Richmond
Eklund, A. W., Pleasant Hill
Giesler, Don H., Osceola
Gonzalez, M. Garza, Warrensburg
Hansen, A. L., Butler
Haynes, Robert C., Marshall
Huber, K. H., Richmond
Johnson, C. S., Warrensburg
Kelling, Jordan, Waverly
King, Richard H., Clinton
Knipschild, B. F., Marshall
Lederer, Charles M., Warrensburg
Luter, Carter W., Butler
Magee, Robert L., Eldorado Springs
Maxson, T. Reed, Warrensburg
Pascoe, James J., Nevada
Reid, James A., Marshall
Smith, William J., Windsor
Wray, R. B., Nevada

Seventh Councilor District—57

Anderson, Raymond B., Shawnee Mission, Kan.
Andrews, B. W., Kansas City
Baer, A. J., Kansas City
Barelli, Pat A., Kansas City
Benoit, Hector W., Jr., Kansas City
Berry, Maxwell G., Kansas City
Buhler, Victor B., Kansas City
Calovich, Emery R., Kansas City
Chandler, Robert A., Kansas City
Davis, Herbert V., Kansas City
Drake, Roy F., Kansas City
Eubank, David F., Raytown
Forsythe, Robert W., Kansas City
Frick, J. Paul, Kansas City
Griffith, John A., Prairie Village, Kan.
Hannas, R. R., Kansas City
Hibbard, Blaine Z., Kansas City
Hyde, L. L., Kansas City
Johnson, Dallas A., Kansas City
Johnson, Joseph E., Kansas City
Ketterman, H. L., Leawood, Kan.
Kyger, John, Independence
Lee, Henry A., Kansas City
Leo, William A., Kansas City
Linville, Howard E., Kansas City
Lytton, George, Kansas City
McCanse, Andrew, Kansas City
McDonnell, John F., Kansas City
McKee, Wallace P., Kansas City
McVay, James R., Jr., Kansas City
Martin, Clyde V., Kansas City
Miller, Gerald L., Kansas City
Mooney, Justin L., Kansas City
Murphy, Robert J., Kansas City
Nigro, D. M., Kansas City
Ost, Mark, Kansas City
Ozar, Milton B., Kansas City
Padfield, E. G., Kansas City
Reinhardt, G. R., Kansas City
Reister, Dorothy D., Shawnee Mission, Kan.
Reister, Philip D., Shawnee Mission, Kan.
Sabates, Felix N., Kansas City
Sanders, William F., Kansas City
Schillie, Gene A., Kansas City
Schottman, G. W., Kansas City
Slickman, R. A., Kansas City
Sneid, Philip, Kansas City
Steffen, L. F., Kansas City
Stelmach, W. J., Kansas City
Stratemeier, E. H., Kansas City
Underwood, Dick H., Kansas City
Van Buskirk, William, Kansas City
Wall, L. A., Kansas City
Wheeler, Charles, Kansas City
White, S. F., Kansas City
Whittaker, Keith, Kansas City
Young, Paul R., Kansas City

Eighth Councilor District—69

Allen, David O., Joplin
Anthony, Dallas D., Springfield
Ashley, Thomas E., Springfield
Auner, Cecil, Springfield
Back, D. K., Springfield
Bareis, R. J., Marshfield
Barnett, N. H., Joplin
Bauer, Harold, Lockwood
Bonebrake, M. D., Springfield
Brasher, C. A., Mount Vernon
Brown, James T., Springfield
Brown, Lyman, Springfield
Burns, T. J., Springfield
Busiek, Urban J., Springfield
Carroll, Thomas W., Lamar
Chase, Ned B., Joplin
Christianson, C. S., Mount Vernon
Christy, Raymond, Springfield
Cohle, Richard R., Carthage
Donley, Robert P., Monett
Esther, John R., Joplin
Farthing, Gene, Springfield
Ferrell, Thomas E., Springfield
Gardner, Joe W., Reeds Spring
German, Walter A., Springfield
Giddings, Frank C., Springfield
Gillispie, Roy, Branson
Glover, Kenneth, Mount Vernon
Griffin, Evelyn, Buffalo
Griffin, O. A., Buffalo
Hall, Durward G., Springfield
Hall, M. F., Joplin
H'Doubler, Charles, Springfield
H'Doubler, F. J., Springfield
Holmes, Daniel, Springfield
Ivy, H. B., Springfield
Johnson, William F., Springfield
Kahler, Monte, Bolivar
Kenney, Roy E., Neosho
Knabb, Kenneth, Springfield
Kolze, V. W., Springfield
Lerner, Sheldon, Springfield
Lewis, Noel R., Springfield
Lockhart, C. E., Springfield
McAlhany, Howard, Springfield
McCraw, Doyle C., Bolivar
McNew, W. T., Carthage
Macdonnell, T. M., Marshfield
Maher, Robert W., Springfield
Menchetti, Don, Springfield
Moseley, F. Thomas, Springfield
Neu, Leo T., Springfield
Overend, Don S., Springfield
Papp, Sandor D., Joplin
Peterson, Stanley S., Springfield
Polk, John W., Springfield
Powell, Edwin M., Springfield
Prater, B. G., Springfield
Robinson, Gary L., Springfield
Roper, S. D., Ozark
Rosen, Max, Springfield
Simpson, Emerson L., Springfield
Snead, William H., Springfield
Spalding, D. L., Springfield
Taylor, Leo T., Neosho
Tillman, Walter, Jr., Springfield
Turner, Glenn O., Springfield
Walker, William M., Springfield
Wood, George H., Carthage

Ninth Councilor District—11

Bass, B. J., Salem
Beene, T. K., Lebanon
Cooper, C. W., Thayer
Fowler, Marvin L., West Plains
Froelich, R. W., Lebanon
Hart, Martin M., Salem
Hasek, Martin, Mountain Grove
Kays, Kenneth M., Rolla
Pendell, Paul W., Rolla
Stricker, E. A., St. James
Wiles, Jack N., West Plains

Tenth Councilor District—40

Alxea, J. O., Cape Girardeau
Ashley, Hugh V., Cape Girardeau
Beecher, S. B., Poplar Bluff
Benson, Leo J., Kennett
Biggs, Fred J., Poplar Bluff
Burford, Edwin K., Cape Girardeau
Camp, Richard V., Jr., Poplar Bluff
Cash, Charles R., Kennett
Cook, O. W., Caruthersville
Cozean, Charles H., Cape Girardeau
Crowe, John T., Cape Girardeau
DeGenova, G. H., Ste. Genevieve
Dettmer, Robert F., Ironton
English, W. D., Cardwell
Estes, Albert M., Cape Girardeau
Farmer, Norma, Farmington
Ferguson, Wilson J., Sikeston
Frazier, R. L., Charleston
Hansbrough, E. T., Poplar Bluff
Holcomb, John K., Cape Girardeau
Huckstep, Robert A., Farmington
Kasten, Melvin C., Cape Girardeau
Legan, John K., Kennett
McDermott, A. E., Perryville

McGinty, Charles P., Cape Girardeau
Miller, David V., Poplar Bluff
Morest, F. S., Cape Girardeau
Nunnelly, Gordon M., Cape Girardeau
Osborn, Retus W., Farmington
Peck, Chester R., Kennett
Pu, Pin H., Kennett
Rapp, Harold B., Cape Girardeau
Ruff, T. E., Poplar Bluff
Seabaugh, William O. L., Cape Girardeau
Sparkman, Thomas C., Cape Girardeau
Talbert, C. R., Jr., Cape Girardeau
Tarver, Quinton, Kennett
Taylor, Van W., Bonne Terre
Till, Bennie N., Dexter
Turner, Kirby L., Potosi

Guest Physicians—73

Ahmad, Munawar, St. Louis
Ahmed, M. D., St. Louis
Aquilino, James, Columbia
Armaly, Monsour F., Iowa City, Iowa
Arndal, Otto, Chicago, Ill.
Atay, Mahmut, Mt. Vernon
Basurto, Leonardo, Columbia
Baula, Armindo, St. Louis
Bin, J. W., St. Louis
Bleisch, Virgil, St. Louis
Burke, William A., Ft. Leonard Wood
Catanzaro, Ronald J., Jefferson City
Cook, Jerry W., Columbia
Cooley, Denton A., Houston, Texas
Culbertson, Roy F., E. St. Louis, Ill.
Curran, Kevin E., Columbia
David, Gerald N., St. Louis
Davisson, W. F., Webster Groves
deVera, Anson, E., St. Louis
Dumke, Paul R., Detroit, Mich.
Dunner, Edw., Silver Springs, Md.
Edelstein, J. B., Mansfield, Ohio
Emanuel, Todd M., Kirkwood
Ertan, Tuneay, Mt. Vernon
Fernandez, F., St. Louis
Gardner, George H., Chicago, Ill.
Garrett, John J., St. Louis
Gendel, Evalyn, Topeka, Kan.
Gwaltney, J. A., Quincy, Ill.
Hansen, Hobart R., St. Louis
Jacobs, M. W., Quincy, Ill.
Jain, Kamal M., St. Louis
Klaus, H., St. Louis
Johnson, Florence, Northwoods, Mo.
Jolley, Harold, Mill Valley, Calif.
Kozdereli, Erol, Mt. Vernon
Kwan, Vincent, St. Louis
Labrum, Anthony, St. Louis
Lambert, Joseph L., Columbia
Leaehman, Robert D., Houston, Tex.
Lemoine, Albert N., Jr., Kansas City, Kan.
Louria, Donald B., New York, N. Y.
Lowy, Alfred C., New York, N. Y.
Luthra, Ramesh C., St. Louis
Lyon, Richards, Berkeley, Calif.
McGonigle, J. P., St. Louis
McKee, Howard, Clayton
Mayor, G. H., St. Louis
Mohyuddin, Sadiq, St. Louis
Naguib, M. S., St. Louis
Nealon, Thomas F., Jr., New York, N. Y.
Nopachai, St. Louis
Packer, James T., Columbia
Pratt, Lindsay, St. Louis
Rahman, M., St. Louis
Rao, M. D., St. Louis
Reddy, P. A., Mt. Vernon
Ricketts, Harry, St. Louis
Rietman, H. J., Evansville, Ind.
Rourke, John, Columbia
Rutherford, Robert H., Carlinville, Ill.
Scheen, S. R., Louisville, Ky.
Siegel, V. P., East St. Louis, Ill.
Slavin, Raymond G., St. Louis
Tonetti, Raymond B., St. Ann
Ugarte, Thomas R., Kansas City
VanFossan, Wes, St. Louis
Ventres, Manuel, St. Louis
Webb, Robert, Columbia
Westura, Edwin E., St. Louis
Williams, M. P., Alton, Ill.
Wright, D. W., Decorah, Iowa
Young, Thomas J., Kansas City

There were 639 members registered, 73 guest physicians, 152 exhibitors, 149 medical technologists, 136 Woman's Auxiliary, 68 guests, making a total registration of 1,217.

111TH ANNUAL SESSION EXHIBITORS

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Missouri Seven-Up Bottlers Association, St. Louis
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The Missouri State Medical Foundation—MSMF—was created by the Missouri State Medical Association for the express purpose of giving financial assistance to deserving young Missourians who will be tomorrow's doctors.

It is the privilege—and responsibility—of physicians in practice to see that medical education funds are available to the young men and women who are well qualified to study medicine, but need financial help.

Send a check today to MSMF.

MSMF GRANTS LOANS UP TO $1500 A YEAR TO MEDICAL STUDENTS

MISSOURI STATE
MEDICAL FOUNDATION

515 East High St., Jefferson City, Missouri 65101

• SPONSORED BY THE MISSOURI STATE MEDICAL ASSOCIATION •

Missouri State Medical Foundation

Minutes of the Annual Meeting
Chase-Park Plaza Hotel, St. Louis
Friday, March 21, 1969

The meeting was called to order at 5:30 PM by Paul R. Whitener, M.D., President. A quorum was declared present. Dr. Whitener stated that the minutes of the 1968 Annual Meeting in Kansas City, immediately following the Friday afternoon, March 29 session of the MSMA House of Delegates, had been published in the July, 1968 issue of MISSOURI MEDICINE. He called for any additions or deletions to the minutes. There being none, the minutes of the 1968 meeting were declared approved as published. Dr. Whitener also pointed out that the minutes of the Board of Trustees meeting, following the 1968 Annual Meeting, also had been published in the July, 1968 issue of MISSOURI MEDICINE.

Dr. Whitener announced that the Woman's Auxiliary to the Missouri State Medical Association has contributed approximately $450 to the MSMF. The money was donated by various county auxiliaries in the state. He also stated that the Woman's Auxiliary had named a committee to work with the MSMF.

Dr. Whitener directed attention to the financial statement of the Foundation as of Jan. 31, 1969, a mimeographed copy of which was offered to those in attendance and which reads as follows:

FINANCIAL STATEMENT FOR THE YEAR 1968

LENNERTSON & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

ST. LOUIS, MISSOURI 63105

January 27, 1969

Missouri State Medical Foundation
515 East High Street
Jefferson City, Mo. 65101

Gentlemen:

A review was made of the records of the Missouri State Medical Foundation, a non-profit Missouri corporation, for the year 1968. The Balance Sheet at December 31, 1968 is on a cash basis and the additions for the year are set forth in Exhibit A.

Recorded receipts for the year were traced in total into the bank account as deposits and paid checks were seen for the disbursements. A direct confirmation was received from the depositary in verification of the cash balances on deposit.

A summary of the cash balance on deposit.

A summary of the loans to medical students follows:

Loans Receivable January 1, 1968	$234,004.81	
Loans made during the year	37,750.00	
Total	$271,754.81	
Less Loan Repayments	8,409.71	
Loans Receivable December 31, 1968		$263,345.10

Individual records of loans were reviewed and student loan contracts were inspected. The Foundation carried insurance on the lives of students to assure repayment of the loans in the event of death. Interest income on loans is recorded on a cash basis and the amount received in 1968 was $1,739.70. Accrued interest on outstanding loans at December 31, 1968 amounted to $17,087.97 and is not included in the loan balances in Exhibit A.

Interest received on the savings account and the certificate of deposit amounted to $1,114.05. The certificate of deposit due January 6, 1969 was renewed for six months and interest of $477.08 was received.

The Missouri State Medical Association paid expenses for the Foundation as follows:

State Registration Fee	$ 1.00
Professional Fees	400.00
Insurance Premiums	1,533.46
Printing	3.75
Meeting Expense	61.41
Total	$1,999.62

These amounts have not been recorded as receipts and disbursements on the records of the Foundation.

U. S. Treasury Department form 990A has been prepared for the year 1968 and is due for filing on May 15, 1969.

No opinion is expressed on the attached statement as it is on a cash basis and student loan balances were not verified by direct confirmations.

Yours very truly,
LENNERTSON & CO.
Certified Public Accountants

EXHIBIT A

MISSOURI STATE MEDICAL FOUNDATION
Balance Sheet (Cash Basis), December 31, 1968

Assets

Cash in Checking Account	$ 20,261.19
Savings Account	4,620.28
Certificate of Deposit, due Jan. 6, 1969	19,083.51
Loans Receivable from Medical Students	263,345.10
Total Assets	$307,310.08

Fund Reserve

Balance January 1, 1968		$275,991.41
Cash Additions for Year 1968		
Interest on Loans	$ 1,739.70	
Interest on Bank Deposits	1,114.05	
Contributions (see below)	2,106.50	
Assessment of Members—Active $7.50; Junior $3.75	26,358.42	
Total for year 1968		31,318.67
Total Reserve		$307,310.08

Contributions

Long's Drug Shop, Boonville, Mo.	$ 100.00
Boonville Medical Group, Boonville, Mo.	100.00
South Central County Medical Society, West Plains, Mo.	100.00
Katz Drug Company, Kansas City, Mo.	500.00
Woman's Auxiliary to M.S.M.A., Liberty, Mo.	100.00
Max S. Franklin, M.D., St. Loius, Mo.	100.00
Paul R. Whitener, M.D., St. Louis, Mo.	250.00
Albert D. Cross, M.D., Trenton, Mo.	100.00
West Central Medical Society, Nevada, Mo.	100.00
Roy W. Pearse, Jr., M.D., Nevada, Mo.	100.00
Skaggs Community Hospital Medical Staff, Branson, Mo.	100.00
Sub-total	$1,650.00
Contributions under $100 each	456.50
Total Contributions	$2,106.50

(The following report was made subsequent to the above audit.)

Balance on hand, 12-31-68	$43,964.98
January loans—1969 (spring) (Number of loans—29)	19,120.00
	$24,844.98
Income January 1969	584.95
	$25,429.93

Cash on hand 1-31-69		
Checking account	$ 1,726.14	
Savings account	23,703.79	
Total cash on hand 1-31-69		$25,429.93

Dr. Whitener called for the next order of business which was the election to the Board of Trustees. Byron M. Stuart, M.D., Boonville, was elected to a five-year term on the Board of Trustees of the Missouri State Medical Foundation, a non-profit organization which makes educational loans to medical students who are residents of Missouri. Doyle C. McCraw, M.D., Bolivar, becomes an ex-officio member of the Board as incoming President of the Missouri State Medical Association.

Dr. Whitener then called for any other business to come before the meeting. There being none, he announced that short meeting of the Board of Trustees would follow immediately after the adjournment of the Annual Meeting.

The meeting adjourned.

Minutes of the MSMF Board of Trustees Meeting Chase-Park Plaza Hotel, St. Louis Friday, March 21, 1969

The meeting of the Board of Trustees was called to order by Paul R. Whitener, M.D., President, immediately following the adjournment of the Annual Meeting of the MSMF. Those present were Drs. Paul Whitener, Max S. Franklin, David N. Kerr, Charles R. Doyle and Byron M. Stuart.

Dr. Whitener explained that the purpose of the meeting was to elect officers. He asked Dr. Charles R. Doyle, Secretary-Treasurer, to preside during the election of officers. On motion, duly seconded, all officers were reelected by unanimous vote. They are Paul R. Whitener, M.D., St. Louis, President of the Board; Albert Cross, M.D., Trenton, Vice-President; and Charles R. Doyle, M.D., St. Louis, Secretary-Treasurer.

Mr. Thomas P. Fox was reappointed Assistant Secretary and will assist in the administration of the Foundation's program.

Next order of business was the selection of a method for solicitation of contributions from the full membership of the MSMA. In 1968, a letter from Paul R. Whitener, M.D., President of the Missouri State Medical Foundation, was published in Missouri Medicine and sent to the Woman's Auxiliary of the MSMA for circulation to the county auxiliaries and publication in the Auxiliary newsletter, *RX Auxiliary News*. However, it was decided that, in 1969, a letter should be sent to each member of the MSMA soliciting contributions for the Foundation and, also, requests should be forwarded to the Woman's Auxiliary of the MSMA.

There being no further business, the Board meeting was declared adjourned.

HIGHLAND HOSPITAL

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A DIVISION OF THE DEPARTMENT OF PSYCHIATRY OF DUKE UNIVERSITY

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Complete facilities for evaluation and intensive treatment of psychiatric patients, including individual psychotherapy, group therapy, psychodrama, electro-convulsive therapy, Indoklon convulsive therapy, drugs, social service work with families, family therapy and an extensive and well organized activities program, including occupational therapy, art therapy, athletic activities and games, recreational activities and outings. The treatment program of each patient is carefully supervised in order that the therapeutic needs of each patient may be realized.

High school facilities for a limited number of appropriate patients are now available on grounds. The School Program is fully integrated into the hospital treatment program and is accredited through the Asheville School System.

Complete modern facilities with 85 acres of landscaped and wooded grounds in the City of Asheville.

Brochures and information on financial arrangements available
Contact: Mrs. Elizabeth Harkins, ACSW, Coordinator of Admissions

or

Charles W. Neville, Jr., M.D.

Assistant Professor of Psychiatry and Medical Director

Area Code 704-254-3201

The Council Reports

Meeting of March 23, 1969

The MSMA Council met at the Hotel Chase in St. Louis on March 23, 1969 immediately following the closing of the 111th Annual Session with President Doyle C. McCraw, M.D., Bolivar, presiding. Those present were Drs. McCraw; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; Joseph L. Fisher, St. Joseph; Lysle M. Bach, Hannibal; Walter T. Gunn, St. Louis; Robert A. Mayer, Clayton; Rolla B. Wray, Nevada; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; William Mayer, Columbia; David N. Kerr, St. Louis; W. D. English, Cardwell; Eugene T. Hansbrough, Poplar Bluff; William D. Bradshaw, Clinton; John N. Martin, St. Joseph; Gerald L. Miller, Kansas City; Messrs. Hollister Smith, St. Louis; Allen D. Smith, Kansas City; Ray McIntyre, Bob Carroll and Royal Cooper, Jefferson City.

Dr. English introduced Dr. Eugene T. Hansbrough, Poplar Bluff, the new Councilor from the Tenth District, and stated that he had enjoyed his association as Councilor. Dr. McCraw thanked Dr. English for his wonderful work and his faithful attendance at Council meetings.

Dr. Wray stated that he had enjoyed being on the Council and, also, his years as Alternate Delegate to the AMA. He said he would like to introduce a young man who was active in civic and medical affairs, Dr. William D. Bradshaw of Clinton, who was elected as the new Councilor from the Sixth District.

Dr. Fisher, former chairman of the Council, and President-Elect of MSMA, thanked the Council members for their support during his year as Chairman. He then nominated Dr. John N. Martin of St. Joseph to fill his unexpired term of one year as Councilor for the First District. On motion, Dr. Martin was unanimously elected.

Dr. Gerald L. Miller was nominated and elected Chairman of the Council by unanimous vote, and thereby became the presiding officer.

Election of Officers

Dr. Matthews was nominated and unanimously elected Secretary, and Dr. Max S. Franklin was nominated and elected Treasurer by acclamation. Dr. Walter T. Gunn was nominated and unanimously elected Vice-Chairman of the Council.

Congratulations were extended to Drs. Bach, Robert Mayer and McAlhany, the Councilors from the Second, Fourth and Eighth Districts who were reelected.

Kansas City Medical School

Dr. Miller requested Council opinion regarding alerting the Senate Appropriations Committee relative to reaffirmation of our stand for establishing a new medical school in Kansas City. After discussion, on motion of Dr. Mayer, duly seconded, it was agreed that a copy of the resolution regarding the establishment of a new medical school in Kansas City, Mo., which was adopted by the House of Delegates in 1968, be sent to each member of the Senate Appropriations Committee with a covering letter signed by the President indicating that this resolution, as of March 23, 1969, has been reaffirmed by the Council at its official meeting on March 23, 1969.

On motion of Dr. Kerr, seconded by Dr. Gunn, it was agreed that the Council give permission to the staff and the chairman of the Legislative Committee, as they see fit, to use the second resolution regarding increasing the medical manpower in Missouri, which was adopted by the House of Delegates in 1968, in their dealings with the legislature provided that it can be used without compromising the first resolution.

Student Health Organizations

Dr. Robert Mayer introduced the subject of the Student Health Organization (SHO) which is contacting local medical societies for support and suggested that the doctors be alerted.

Dean Mayer of the University of Missouri stated that the SHO Chapter at the University of Missouri is newly-established and is involved in certain activities for two areas: (1) student impact on improving health care in this country, particularly the indigent, and (2) their desire for educational relevancy.

It also was reported that SHO was setting up a clinic for the indigent in Columbia and that they had contacted the Boone County Medical Society for support. This was referred to a Committee of the Boone County Medical Society for consideration.

Attention was called to an article which was published in *Missouri Family Doctor*. It was suggested that a copy of this article be furnished to each Councilor.

Dr. Matthews suggested that the Field Secretary of MSMA watch this situation closely so that the Council can be kept advised of what the situation is and how it develops.

Location of 1971 Annual Session

Mr. McIntyre reported that a number of the members who attend the annual meeting each year were requesting that consideration be given to holding the St. Louis meeting at another location. After discussion, on motion of Dr. Matthews, it was agreed that the executive staff be empowered to investigate the possibility of relocating the 1971 annual meeting in St. Louis.

Next Council Meeting

The next meeting of the Council will be held June 7, 8, 1969, or alternate dates of June 14, 15, depending on where accommodations can be obtained.

(Since that time, because of several conflicts, it has been determined that the next Council meeting will be held in St. Louis at the Chase Hotel on Saturday and Sunday, June 14, 15, 1969.)

CLASSIFIED ADS

FOR SALE—Active medical office (general practice) in St. Joseph, Mo. Well equipped: EKG, fluoroscope, etc. Write to Box 356, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

OBSTETRICIANS—Help establish an outstanding OB-GYN Department in a 75,000 population area an hour south of St. Louis. High salary, early partnership, new hospital, excellent community. Contact C. W. Chastain, M.D., Medical Arts Clinic, Farmington, Mo. 63640.

ELEVEN ROOM OFFICE—For rent in large Missouri city. Across from large hospital. Completely equipped. Option to buy office, general and surgical equipment. Write to Box 353, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

UNHEARD OF—General practice opportunity in Greater K. C., suburban Johnson County, Kan. Complete facilities including x-ray and excellent practice for lease. $30,000 minimum annual income. Donald J. Smith, M.D., 8600 W. 95th, Overland Park, Kansas 66212.

ASSOCIATE OR PARTNER—In general practice to share office space in new, ultra-modern office building in Jefferson City, Mo., 30 miles from the University of Missouri Medical Center. Office space also available for Internist, Pediatrician, Dentist, Surgeon or Obstetrician. Overwhelming need for General Practitioner and above specialties. Practice overwhelming after 2½ years. Net income $35,000 to $45,000 annually. If interested call Jefferson City collect—AC 314 635-2542 or 635-2542.

ONE INTERNIST, ONE GENERAL PRACTITIONER, ONE UROLOGIST AND ONE ORTHOPEDIC SURGEON—228 bed, accredited GM&S hospital. Congenial atmosphere, excellent fringe benefits. Salary contingent on qualifications. Contact Director, VA Hospital, Poplar Bluff, Mo. 63901.

LOCAL TENENS WANTED—For August, 1969. General medicine only. Minimum of $2,000 per month. Illinois license required. Call Collect: 618-876-5062.

GENERALISTS—Tired of the Solo Rat Race? Medical Arts Clinic in Farmington is expanding its general medicine services. Three minutes from a new hospital in Eastern Missouri's nicest small town. C. W. Chastain, M.D., Farmington, Mo. 63640.

WANTED—Full-time industrial physicians for permanent employment in Remington Arms Company plant in Arkansas. Career positions. Excellent opportunity. General practice background acceptable. Salary open. An equal opportunity employer. Write or call collect to E. M. Marks, M.D., Medical Director, Remington Arms Co. Inc., 939 Barnum Avenue, Bridgeport, Conn. 06602, phone (AC 203) 333-1112.

WANTED—Two general practitioners in Clinic with three GP's. Furnished and equipped with x-ray and laboratory. County-seat town of 12,500; 95-bed hospital. Liberal arts college. Contact Aiken, Lawrence & Roehrs Clinic, Marshall, Mo. AC 816-426-5551.

MEDICAL RECEPTIONIST-TYPIST—Age 25-40; three years secretarial experience, preferably in psychiatric or psychological field. Salary commensurate with experience and educational background. Five-day week. Call between 9-12 AM. AC 314 PA 1-0200, Clayton, Mo.

WANTED—General practitioner or pediatrician to join seven-man group. Salary for two years and then partnership. Wyeth Hamilin, M.D., The Hannibal Clinic, Hannibal, Mo. 63401.

PHYSICIAN—Generalist or internist in St. Louis area. Busy practice with four other physicians in an industrial and medical-surgical practice. Excellent salary for one year, then partnership available. Call is rotated. Contact Box 355, Missouri State Medical Association, 515 E. High St., Jefferson City, Mo. 65101.

FOR SALE—100 MA x-ray unit with Bucky, tilt table and fluoroscope; examining tables; royal chrome reception room furniture; sterilizer and office autoclave; instruments, etc. M.D. retiring. Contact E. Charles Rolwing, M.D., First & Market Streets, Charleston, Mo. 53834. Office phone—1-314-683-6239. Home phone—1-314-683-4750.

COMPLETE OFFICE FURNISHINGS—For sale. Includes three examining rooms available to young physician planning St. Louis area practice. Can be seen at Mound City Medical Center, 2715 Union Blvd., St. Louis. Price is reasonable. Mason D. Cloyd, M.D., Room 1504, 3800 Newark St., N.W., Washington, D. C. 20333.

Give now to your student loan fund!

MISSOURI STATE MEDICAL FOUNDATION

SPONSORED BY THE MISSOURI STATE MEDICAL ASSN.
515 E. High St./Jefferson City, Missouri 65101

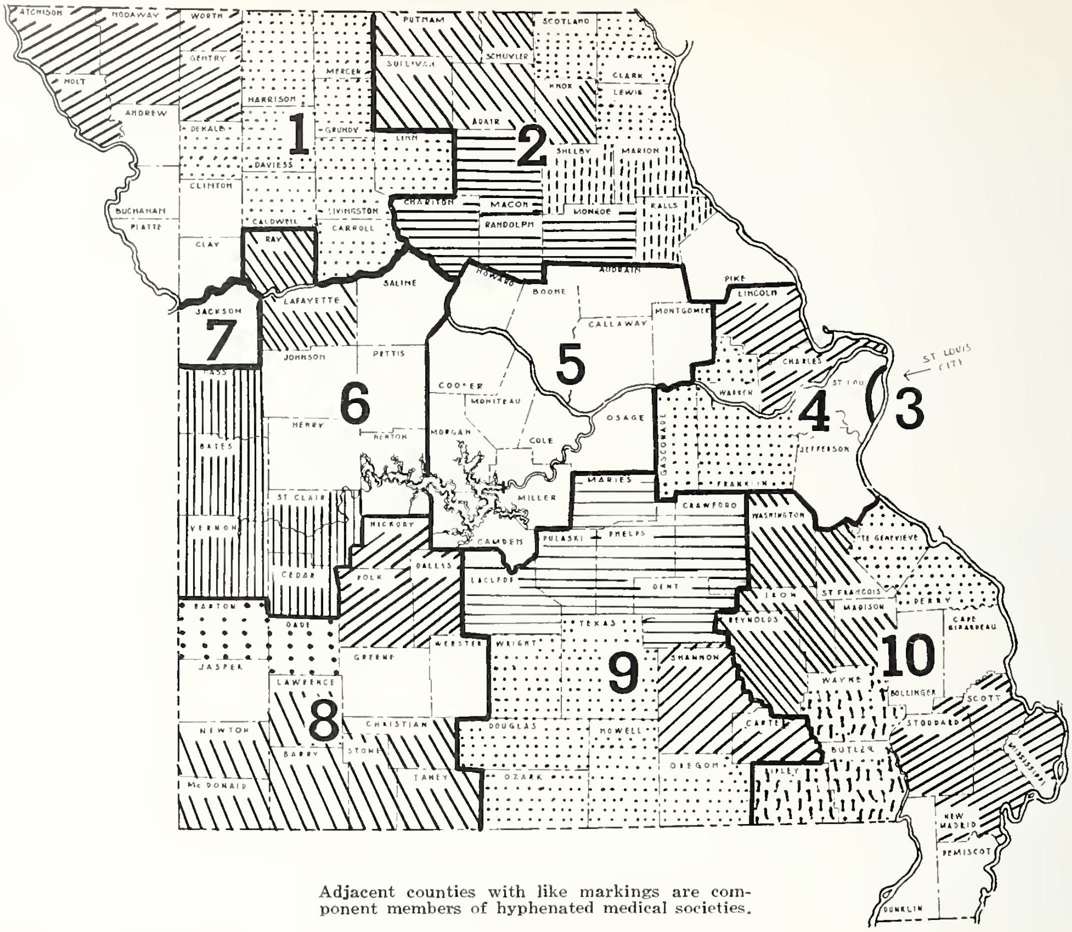
Purposes of Association

THE PURPOSES of the Missouri State Medical Association are to bring into compact organization the entire medical profession of the State of Missouri with the view of the extension of medical knowledge and the advancement of medical science, to promote and elevate the standards of medical education and the enactment and enforcement of just medical and public health laws, to encourage friendly intercourse among physicians, to guard and sustain measures of interest and advantage to the public and the medical profession and to promote science, knowledge and skill among the medical profession.

1950 MSMA Handbook
Centennial Issue

Joseph V. Finnegan
Editor

Councilor Districts and Counties in Each District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DOUGLAS
HOWELL
CARTER
STODDARD
BARRY
STONE
BUTLER
MISSISSIPPI
McDONALD
TANEY
OZARK
OREGON
RIPLEY
NEW MADRID
PEMISCOT
DUNKLIN

Adjacent counties with like markings are component members of hyphenated medical societies.

DISTRICT	COUNCILOR	COUNTIES
First	**John N. Martin, M.D.** St. Joseph	Andrew, Atchison, Buchanan, Caldwell, Carroll, Clay, Clinton, Daviess, De Kalb, Gentry, Grundy, Harrison, Holt, Linn, Livingston, Mercer, Nodaway, Platte and Worth
Second	**Lysle M. Bach, M.D.** Hannibal	Adair, Chariton, Clark, Knox, Lewis, Macon, Marion, Monroe, Pike, Putnam, Ralls, Randolph, Schuyler, Scotland, Shelby and Sullivan
Third	**Walter T. Gunn, M.D.** (Vice-Chairman) St. Louis	St. Louis (City)
Fourth	**Robert A. Mayer, M.D.** St. Louis County	Franklin, Gasconade, Jefferson, Lincoln, St. Charles, St. Louis (County) and Warren.
Fifth	**James C. Cope, M.D.** Columbia	Audrain, Boone, Callaway, Camden,* Cole, Cooper, Howard, Miller, Moniteau, Montgomery, Morgan and Osage*
Sixth	**William D. Bradshaw, M.D.** Clinton	Bates, Benton, Cass, Cedar, Henry, Johnson, Lafayette, Pettis, Ray, St. Clair, Saline and Vernon
Seventh	**Gerald L. Miller, M.D.** (Chairman) Kansas City	Jackson
Eighth	**Howard J. McAlhany, M.D.** Springfield	Barry, Barton, Christian, Dade, Dallas, Greene, Hickory, Jasper, Lawrence, McDonald, Newton, Polk, Stone, Taney and Webster
Ninth	**E. A. Stricker, M.D.** St. James	Carter, Crawford, Dent, Douglas, Howell, Laclede, Maries, Oregon, Ozark, Phelps, Pulaski, Shannon, Texas and Wright
Tenth	**Eugene T. Hansbrough, M.D.** Poplar Bluff	Bollinger,* Butler, Cape Girardeau, Dunklin, Iron, Madison, Mississippi, New Madrid, Pemiscot, Perry, Reynolds, Ripley, St. Francois, Ste. Genevieve, Scott, Stoddard, Washington and Wayne

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* Counties with no medical organization.

Component Societies in Affiliation With the Missouri State Medical Association

County	District	President	Address	Secretary	Address
Andrew	1	Gilbert B. Kelley	Savannah	Warren C. Baker	Savannah
Audrain	5	Peter H. Ekern	Mexico	Thomas L. Dwyer	Mexico
Barton	8	Vern T. Bickel	Lamar	Herbert M. Arnold	Lamar
Boone	5	George Fuchs	Columbia	Roger Bumgarner	Columbia
Buchanan	1	John L. Mothershead	St. Joseph	Lawrence H. Pifer	St. Joseph
Butler-Wayne-Ripley	10	Alex W. Hoja	Poplar Bluff	Richard V. Camp, Jr.	Poplar Bluff
Callaway	5	Richard A. Osbourn	Fulton	Henry A. Sydow	Fulton
Cape Girardeau	10	Charles P. McGinty	Cape Girardeau	C. R. Talbert	Cape Girardeau
Carter-Shannon	9			Harry D. Rollins	Winona
Chariton-Macon-Monroe-Randolph	2	Robert Hasson	Moberly	Clarence C. Cohrs	Moberly
Clay	1	Franklin C. Werner	Kansas City	Paul Revare	Kansas City
Clinton	1	Wilber B. Spalding	Plattsburg	John P. Mabrey	Plattsburg
Cole	5	James S. Gordon	Jefferson City	Thomas J. Ryan	Jefferson City
Cooper	5	Byron M. Stuart	Boonville	Willard B. Avery	Boonville
Dallas-Hickory-Polk-Dade	8	Olin A. Griffin	Buffalo	Monte R. Kahler	Bolivar
Dunklin	10	John L. Hunt	Campbell	Quinton Tarver	Kennett
Franklin-Gasconade-Warren	4	Paul Brenner	Owensville	Donald L. Baker	Union
Grand River (Caldwell-Carroll-Livingston-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb)	1	Jack L. Vinyard	Carrollton	Windsor B. Atcheson	Trenton
Greene	8	Charles E. Lockhart	Springfield	Howard J. McAlhany	Springfield
Henry	6	W. D. Bradshaw	Clinton	R. S. Hollingsworth	Clinton
Howard	5	F. D. Dean	Fayette	M. P. Leech	Fayette
Jackson	7	Edward H. Stratemeier	Kansas City	S. Ross Melgaard	Kansas City
Jasper	8	David O. Allen	Joplin	Herbert J. Schmidt	Joplin
Jefferson	4	David S. Glasgow	Crystal City	J. Logan Mayfield	Crystal City
Johnson	6	Keith D. Jones	Warrensburg	M. Garza Gonzalez	Warrensburg
Lafayette-Ray	6	Joe Ward	Lexington	W. Wayne Boydston	Odessa
Lewis-Clark-Scotland	2	Earl E. Gilfillan	Memphis	Landis Y. Davis	Canton
Lincoln-St. Charles	4	Vincent P. Perna	St. Louis	Earl J. Wipfler, Jr.	St. Charles
Marion-Ralls-Shelby	2	Albert J. Grant	Hannibal	James K. Mann	Hannibal
Mid-Missouri (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)	9	Thomas K. Beene	Lebanon	Ted P. Smith	Rolla
Miller	5	E. O. Shelton	Eldon	Carl T. Buehler, Jr.	Eldon
Mineral Area (St. Francois-Iron-Madison-Washington-Reynolds)	10	Tom R. Burcham, Jr.	Farmington	Charles W. Chastain	Farmington
Moniteau	5	K. S. Latham	California	L. M. Gallagher	California
Montgomery	5	E. J. T. Andersen	Montgomery City	Samuel J. Byland	Wellsville
Morgan	5	Ruth Kauffman	Versailles	J. Loren Washburn	Versailles
North Central Counties (Adair-Schuyler-Knox-Sullivan-Putnam)	2	E. M. Grim	Kirksville	Milton T. English, Jr.	Kirksville
Northwest Missouri Medical Society (Nodaway-Holt-Atchison-Gentry-Worth)	1	E. L. Niedermeyer	Tarkio	Frank B. Matteson	Grant City
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)	8	Mary Newman Meridith	Cassville	Wilbur D. Dabbs	Neosho
Pemiscot	10	Alan S. Gubin	Caruthersville	Clarence W. McKaskle	Caruthersville
Perry-Ste. Genevieve	10	Gerard H. DeGenova	Ste. Genevieve	James F. Fairchild	Perryville
Pettis	6	Thomas S. Hopkins	Sedalia	Robert C. Stockwood	Sedalia
Pike	2	John W. Middleton	Louisiana	Edward K. Jackson	Clarksville
Platte	1	Paul C. Veseovo	Kansas City	Charles H. Sincox	Platte City
St. Louis City	3	Hubert A. Ritter	St. Louis	Joseph B. Vacca	St. Louis
St. Louis County	4	Charles Miller, Jr.	St. Louis	G. Robert Bowles	St. Louis
Saline	6	Donald L. McCoy	Marshall	Marvin E. Roehrs	Marshall
SEMO County Medical Society (Stoddard-New Madrid-Mississippi-Scott)	10	Frank Tull	Sikeston	Thelma C. Buckthorpe	Sikeston
South Central (Howell-Oregon-Texas-Wright-Douglas-Ozark)	9	O. M. Hasek	Mountain Grove	J. N. Wiles	West Plains
Webster	8	Thomas M. Macdonnell	Marshfield	Robert J. Bareis	Marshfield
West Central Missouri Medical Society (Bates-Cass-Cedar-St. Clair-Vernon)	6	William W. Haynie	Butler	Roy W. Pearse, Jr.	Nevada

HEALTH SCIENCES LIBRARY
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Physician Distribution

(List of Missouri communities where MSMA member physicians are in active practice. Name of the community is followed by the county in which it is located and the medical society to which physicians of that community normally would belong.)

A

Affton, St. Louis*
Albany, Gentry, Northwest Missouri
Altenberg, Perry
Appleton City, St. Clair, West Central
Arnold, Jefferson
Aurora, Lawrence, Ozarks
Ava, Douglas, South Central

B

Ballwin, St. Louis*
Belton, Cass, West Central
Berkeley, St. Louis*
Bethany, Harrison, Grand River
Bismarck, St. Francois, Mineral Area
Bloomfield, Stoddard, SEMO
Blue Springs, Jackson
Bolivar, Polk, Dallas-Hickory-Polk-Dade
Bonne Terre, St. Francois, Mineral Area
Boonville, Cooper
Bourbon, Crawford, Mid-Missouri
Bowling Green, Pike
Branson, Taney, Ozarks
Braymer, Caldwell, Grand River
Brentwood, St. Louis*
Bridgeton, St. Louis*
Brookfield, Linn, Grand River
Browning, Linn, Grand River
Brunswick, Chariton, Chariton-Macon-Monroe-Randolph
Buckner, Jackson
Buffalo, Dallas, Dallas-Hickory-Polk-Dade
Butler, Bates, West Central

C

Cabool, Texas, South Central
Cainesville, Harrison, Grand River
California, Moniteau
Camdenton, Camden
Cameron, Clinton
Cape Girardeau, Cape Girardeau
Cardwell, Dunklin
Carrollton, Carroll, Grand River
Carthage, Jasper
Caruthersville, Pemiscot
Cassville, Barry, Ozarks
Centralia, Boone
Chaffee, Scott, SEMO
Charleston, Mississippi, SEMO
Chesterfield, St. Louis*
Chillicothe, Livingston, Grand River
Clarksville, Pike
Clayton, St. Louis*
Clinton, Henry
Columbia, Boone
Concordia, Lafayette, Lafayette-Ray
Crane, Stone, Ozarks
Creve Coeur, St. Louis*
Crystal City, Jefferson
Cuba, Crawford, Mid-Missouri

D

Desloge, St. Francois, Mineral Area
DeSoto, Jefferson
Dexter, Stoddard, SEMO
Doniphan, Ripley, Butler-Wayne-Ripley

E

East Prairie, Mississippi, SEMO
Edina, Knox, North Central
Eldon, Miller
El Dorado Springs, Cedar, West Central
Elsberry, Lincoln, Lincoln-St. Charles
Everton, Jackson
Excelsior Springs, Clay

F

Farmington, St. Francois, Mineral Area
Fayette, Howard
Fenton, St. Louis*
Ferguson, St. Louis*
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Florissant, St. Louis*
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Fredericktown, Madison, Mineral Area
Frontenac, St. Louis*
Fulton, Callaway

G

Gallatin, Daviess, Grand River
Gashland, Clay
Gerald, Franklin, Franklin-Gasconade-Warren
Gideon, New Madrid, SEMO
Gladden, St. Louis*
Glasgow, Howard
Glendale, St. Louis*
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Gower, Clinton
Grandview, Jackson
Grant City, Worth, Northwest Missouri
Gravois Mills, Jackson
Greenfield, Dade, Barton-Dade

H

Hamilton, Caldwell, Grand River
Hannibal, Marion, Marion-Ralls-Shelby
Harrisonville, Cass, West Central
Hayti, Pemiscot
Herculaneum, Jefferson
Hermann, Gasconade, Franklin-Gasconade-Warren
Hickman Mills, Jackson
Higginsville, Lafayette, Lafayette-Ray
Hillsboro, Jefferson
Holden, Johnson
Hornersville, Dunklin
Houston, Texas, South Central
Humansville, Polk, Dallas-Hickory-Polk-Dade
Huntsville, Randolph, Chariton-Macon-Monroe-Randolph

I

Illmo, Cape Girardeau
Independence, Jackson
Ironton, Iron, Mineral Area

J

Jackson, Cape Girardeau
Jefferson Barracks, St. Louis*
Jefferson City, Cole
Jennings, St. Louis*
Joplin, Jasper

K

Kansas City, Jackson
Kennett, Dunklin
King City, Gentry, Northwest Missouri
Kirksville, Adair, North Central
Kirkwood, St. Louis*
Knobnoster, Johnson
Knox City, Knox, North Central
Koch, St. Louis*

L

Ladue, St. Louis*
Lamar, Barton
Lawson, Ray, Lafayette-Ray
Leadwood, St. Francois, Mineral Area
Lebanon, Laclede, Mid-Missouri
Lee's Summit, Jackson
Leeton, Johnson
Lemay, St. Louis*
Lexington, Lafayette, Lafayette-Ray
Liberty, Clay
Lockwood, Dade, Dallas-Hickory-Polk-Dade
Louisiana, Pike

M

Macon, Macon, Chariton-Macon-Monroe-Randolph
Malden, Dunklin
Maplewood, St. Louis*
Marceline, Linn, Grand River
Marshall, Saline
Marshfield, Webster
Marthasville, Warren, Franklin-Gasconade-Warren
Martin City, Jackson
Maryville, Nodaway, Northwest Missouri
Maysville, De Kalb, Grand River
Memphis, Scotland, Lewis-Clark-Scotland
Mexico, Audrain
Milan, Sullivan, North Central
Moberly, Randolph, Chariton-Macon-Monroe-Randolph
Monett, Barry, Ozarks
Montgomery City, Montgomery
Morehouse, New Madrid, SEMO
Morrisville, Polk, Dallas-Hickory-Polk-Dade
Mound City, Holt, Northwest Missouri
Mountain Grove, Wright, South Central
Mountain View, Howell, South Central
Mount Vernon, Lawrence, Ozarks

N

Neosho, Newton, Ozarks
Nevada, Vernon, West Central
New Florence, Montgomery
New Haven, Franklin, Franklin-Gasconade-Warren
New Madrid, New Madrid, SEMO
Normandy, St. Louis*
North Kansas City, Clay

O

Oak Grove, Jackson
Odessa, Lafayette, Lafayette-Ray
O'Fallon, St. Charles, Lincoln-St. Charles
Olivette, St. Louis*
Osceola, St. Clair, West Central
Overland, St. Louis*
Owensville, Gasconade, Franklin-Gasconade-Warren
Ozark, Christian, Ozarks

P

Pacific, Franklin, Franklin-Gasconade-Warren
Palmyra, Marion, Marion-Ralls-Shelby
Paris, Monroe, Chariton-Macon-Monroe-Randolph
Parkville, Platte
Parma, New Madrid, SEMO
Pattonsburg, Daviess, Grand River
Pattonville, St. Louis*
Perryville, Perry, Perry-Ste. Genevieve
Piedmont, Wayne, Butler-Wayne-Ripley
Pine Lawn, St. Louis*
Platte City, Platte
Plattsburg, Clinton
Pleasant Hill, Cass, West Central
Poplar Bluff, Butler, Butler-Wayne-Ripley
Portageville, New Madrid, SEMO
Potosi, Washington, Mineral Area
Princeton, Mercer, Grand River

R

Raytown, Jackson
Reeds Springs, Stone, Ozarks
Republic, Greene
Rich Hill, Bates, West Central
Richmond, Ray, Lafayette-Ray
Richmond Heights, St. Louis*
Ridgeway, Harrison, Grand River
Robertson, St. Louis*
Rock Hill, St. Louis*
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Rolla, Phelps, Mid-Missouri

S

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Savannah, Andrew
Sedalia, Pettis
Senath, Dunklin
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Shelbyville, Shelby, Marion-Ralls-Shelby
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Smithton, Pettis
Smithville, Clay
Springfield, Greene
Stanberry, Gentry, Northwest Missouri
Steele, Pemiscot
Steelville, Crawford, Mid Missouri
Stockton, Cedar, West Central
Strafford, Greene
Sullivan, Franklin, Franklin-Gasconade-Warren
Sweet Springs, Saline

T

Tarkio, Atchison, Northwest Missouri
Thayer, Oregon, South Central
Trenton, Grundy, Grand River
Troy, Lincoln, Lincoln-St. Charles

U

Union, Franklin, Franklin-Gasconade-Warren
University City, St. Louis*

V

Valley Park, St. Louis*
Vandalia, Audrain
Versailles, Morgan

W

Warrensburg, Johnson
Warrenton, Warren, Franklin-Gasconade-Warren
Warsaw, Benton
Washington, Franklin, Franklin-Gasconade-Warren
Waverly, Lafayette, Lafayette-Ray
Waynesville, Pulaski, Mid Missouri
Webb City, Jasper
Webster Groves, St. Louis*
Wellsville, Montgomery
Wentzville, St. Charles, Lincoln-St. Charles
West Plains, Howell, South Central
Willard, Greene
Willow Springs, Howell, South Central
Windsor, Henry
Winona, Shannon, Carter-Shannon
Winston, Daviess, Grand River

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* Member may belong to St. Louis County Medical Society or St. Louis Medical Society.

For Your Records . . . .

The 112th
ANNUAL SESSION

of the

Missouri State Medical Association

will be held on

April 2-5, 1970

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Kansas City

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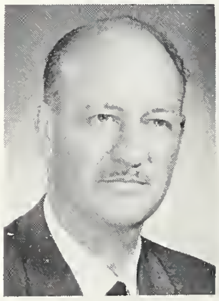

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J. Loren Washburn

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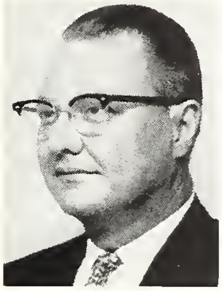
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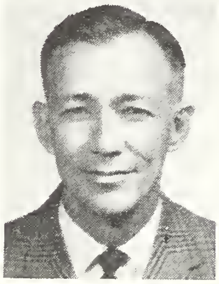
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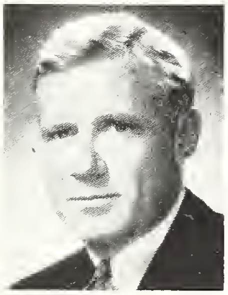
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Robert W. Kelley

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Lysle M. Bach
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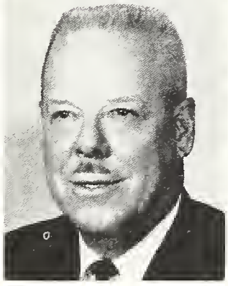
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5th District

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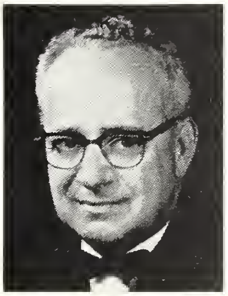
6th District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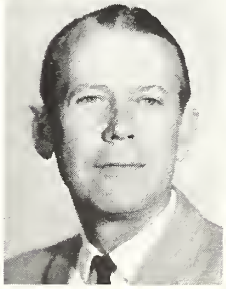
Chairman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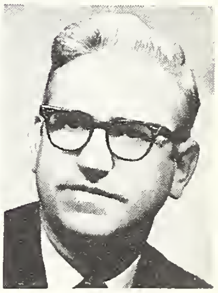
8th District

E. A. Stricker
9th District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Publication—Joseph V. Finnegan, St. Louis, Chairman; Charles S. Sherwin, St. Louis; Byron M. Stuart, Boonville; William C. Mixson, Kansas City; Wilfred E. Wooldridge, Springfield (1970).

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Control of Venereal Disease—Edwin M. Powell, Springfield, Chairman (1971); John N. Martin, St. Joseph (1972); T. E. McMillan, Kansas City (1971); John C. Murphy, St. Louis (1970); A. W. Neilson, St. Louis (1970). **Associate Members**—J. H. Schmidt, Jefferson City; George H. Rodgers, Overland Park, Kansas.

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Laboratory Medicine—Omer Hagebusch, St. Louis, Chairman (1971); Henry C. Allen, Clayton (1972); William R. McPhee, Kansas City (1971); Richard V. Riddell, St. Joseph (1972); Victor B. Buhler, Kansas City (1970). **Associate Member**—Noel R. Lewis, Springfield.

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Aging—Robert H. Tanner, Jefferson City, Chairman (1970); Rolla B. Wray, Nevada (1971); William Slentz, Kansas City (1972); Norman P. Knowlton, Jr., St. Louis (1972); John W. Daake, St. Louis (1970). **Associate Members**—Haywood Jackson, Kansas City; O. W. D. Craig, St. Joseph; William Leightner, St. Louis; Logan Mayfield, Crystal City; C. A. Nester, St. Louis; Robert C. Kingsland, St. Louis.

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Study of Cardiac Disease—Jack S. Sanders, Jefferson City, Chairman; James G. Janney, Jr., St. Louis; R. E. Stufflebaum, Springfield; William J. Shaw, Sr., Fayette; Keith H. Averill, Kansas City; Don J. Stallard, St. Joseph; David V. Miller, Poplar Bluff; Joseph C. Edwards, St. Louis; J. Tenbrook King, Kansas City; Morris Alex, St. Louis; Jack M. Martt, Columbia; V. L. Willman, St. Louis; James Myers, Rolla (1970).

Tuberculosis—Florence E. MacInnis, Kansas City; Paul Murphy, St. Louis; William J. Gillespie, St. Louis; Robert G. Muth, Kansas City; William A. Werner, St. Louis; Alan H. Bailey, Springfield; Sheldon B. Beecher, Poplar Bluff; Judson I. Chalkley, Columbia; C. A. Brasher, Mount Vernon; L. P. McCann, Nevada; Robert Dunshee, Maryville (1970).

Environmental Health—A. W. Neilson, St. Louis, Chairman; E. A. Stricker, St. James; Peter H'Doubler, Springfield; Lloyd A. Hollinger, Kansas City; Carl Marienfeld, Columbia; Thomas J. Fischer, Hannibal; Thomas L. Dwyer, Mexico (1970).

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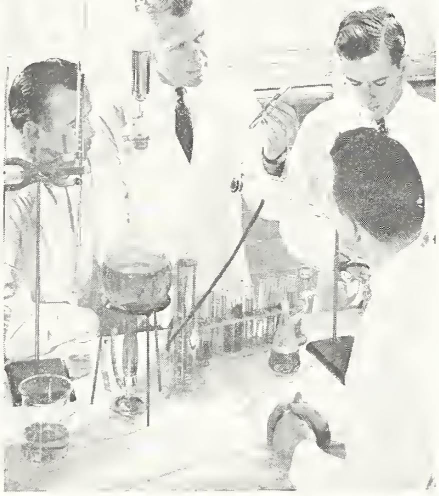

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Alphabetical Roster of Members

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Alvis, Bennett Y., St. Louis
Alvis, Edmund B., St. Louis
Alyea, J. O., Cape Girardeau
Amado-Ledo, David E., St. Louis
Ambler, Carl D., Kansas City
Ames, Mary B., St. Joseph
Ames, William H., St. Joseph
Amlinger, Philipp R., Columbia
Ammatelli, Francis J., Kansas City
Amoury, Raymond A., Kansas City
Andersen, Elmer J. T., Montgomery City
Anderson, Charles B., St. Louis
Anderson, Ivan A., Columbia
Anderson, Paul B., Neosho
Anderson, Philip C., Columbia
Anderson, Raymond B., Kansas City
Anderson, Richard W., Kansas City
Anderson, Thomas R., Columbia
Andrae, Robert L., Louisiana
Andreassen, Dimil F., Rolla
Andrews, Berneil W., Kansas City
Andrus, Bailey C., Kansas City
Angles, Luis E., Kansas City
Anglo, Luis B., St. Louis
Anstey, George, St. Louis
Anthony, Dallas, Springfield
Anthony, Elwyn J., St. Louis
Appleberry, Charles H., Rivermines
Aquino, Philip J., Caruthersville
Arbab, Ali A., Kansas City
Archer, Perry C., Shelbyville
Arms, Arnold V., Kansas City
Armstrong, Jay H., Shawnee Mission, Kan. (Member Clay County Medical Society)
Arneson, Axel N., St. Louis
Arney, William G., St. Louis
Arnold, Eugene L., Jennings
Arnold, Herbert M., Lamar
Arnold, John D., Kansas City
Arnold, Richard C., Columbia
Aronberg, Lawrence M., St. Louis
Aronson, Abraham, St. Louis
Arnot, John P., St. Louis
Arst, Herbert E., Kansas City
Aschman, Theodore H., Kansas City
Asel, Norman D., Columbia
Ash, Charles J., Springfield
Asher, A. Graham, Kansas City
Ashley, Hugh V., Cape Girardeau
Ashley, Hugh, Jr., Cape Girardeau
Ashley, Thomas F., Springfield
Atcheson, Bellefield, Kansas City
Atcheson, Windsor B., Trenton
Atkins, Eliska F., St. Louis
Atkinson, Thomas E., Jr., Springfield
Atwell, Floyd C., Kansas City
Auer, Arthur I., St. Louis
Auer, Edward T., St. Louis
Aufderheide, G. Russell, St. Louis
Augustine, Robert W., St. Joseph
Aulenbacher, Carl E., St. Louis
Auner, Cecil R., Springfield
Averill, Keith H., Kansas City
Avery, Willard B., Boonville
Avioli, Louis V., St. Louis
Ayata, Sedat M., St. Louis
Aylward, Howard J., St. Louis
Azuma, Nobutaka, St. Louis
Azzouni, J. N., Fenton

B

Babka, Joseph J., St. Louis
Bach, Lysle M., Hannibal
Back, Donald K. Springfield
Backer, Matthias H., Jr., St. Louis
Badger, Virginia M., St. Louis
Baer, Alvin J., Kansas City
Bagby, James W., Clayton
Bahn, Charles F., Cape Girardeau
Bailey, Alan H., Springfield
Bailey, Drennan, St. Louis
Bailey, William H., St. Louis
Baird, Keim L., St. Louis
Baker, A. Sherwood, Columbia
Baker, Donald L., Union
Baker, James M., Columbia
Baker, Josephine D., Moberly
Baker, Philip J., Kansas City
Baker, Warren C., Savannah
Balazs, Karl J., Port Charlotte, Fla. (Member St. Louis Medical Society)
Baldwin, Paul, Kennett
Baldwin, Richard, Springfield
Baldwin, Theodore R., Excelsior Springs
Bales, Eugene L., Carrollton
Balhuizen, John, Kansas City
Ball, David A., Kansas City
Ballard, V. Bryce, Kansas City
Ballinger, Walter F., II, St. Louis
Balster, Vernon H., St. Louis
Bandle, Donald F., St. Louis
Banet, Samuel R., St. Louis
Banks, Frank R., Smithville
Banton, M. Roman, St. Louis
Banton, Thomas J., St. Louis
Banton, William C., St. Louis
Barbour, Marvin R., Poplar Bluff
Barden, Frank W., Creve Coeur
Bardenheier, J. Phil, St. Louis
Bare, Chester I., Jr., Raytown
Bare, Edward F., Tarkio
Bareis, Robert J., Marshfield
Barelli, Pat A., Kansas City
Barger, O. B., Harrisonville
Barker, Edward T., St. Louis
Barloon, James H., Kansas City
Barnard, John L., Jr., Kansas City
Barner, Hendrick, St. Louis
Barnes, Seth S., Cape Girardeau
Barnett, Charles H., Bolivar
Barnett, Floyd A., Paris
Barnett, Gordon P., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Barnett, Julian H., St. Louis
Barnett, Norman H., Joplin
Barnette, Eugene, St. Charles
Barnhill, Floyd R., Springfield
Barone, Paul L., Nevada
Barrett, Scott R., St. Louis
Barrios, Francisco, St. Louis
Barrow, Jack, St. Louis
Barry, Gerald W., Kansas City
Barry, William B., Kansas City
Bartels, Leo G., St. Louis
Bartlett, Robert W., St. Louis
Bartlett, Willard, Jr., St. Louis
Bartnick, Mitchel L., St. Louis
Basantz, Fernando V., Kansas City
Baska, R. E., Shawnee Mission, Kan. (Member West Central Missouri Medical Society)
Bass, Billy J., Salem
Bass, Walter R., Kansas City
Bates, George C., Kansas City
Battersby, Richard S., Columbia
Bauc, Arthur E., St. Louis
Bauer, Harold A., Lockwood
Bauer, John D., St. Louis
Bauer, Joseph A., St. Louis
Bauer, Maria, Granite City, Ill. (Member St. Louis Medical Society)
Bauer, Otto, Granite City, Ill. (Member St. Louis Medical Society)
Bauer, Robert A., St. Louis
Baum, Frank E., Kansas City
Bauman, Henry C., Maryville
Baumann, A. R., Steelville
Baumann, William B., APO New York, N.Y. (Member St. Louis Medical Society)
Baumgarten, Walter, Jr., St. Louis
Baumhardt, Edward E., Kansas City
Bawell, Malcolm B., St. Louis
Bay, Merrill R., Blue Springs
Bealer, Louis A., Lebanon
Beam, Sim F., St. Louis
Beard, Daniel D., St. Louis
Beare, J. Byron, St. Louis
Beasley, L. Kenneth, St. Louis
Beato, David L., St. Louis
Beatty, Arch J., Kansas City
Beatty, Nina D., Kansas City
Beck, Calvin E., Kansas City
Beck, Paul M., St. Joseph
Becker, Bernard, St. Louis
Becker, Edward J., St. Louis
Becker, George H., St. Louis
Becker, Richard R., Kansas City
Becker, Rolfe A., Kansas City
Becker, Stanley C., St. Louis
Beckett, Theodore C., Boonville
Beckette, Edmund S., St. Louis
Beckman, Donald E., St. Louis
Beecher, Sheldon B., Poplar Bluff
Beene, Thomas K., Lebanon
Beheler, Edward M., St. Joseph
Behrens, Donald T., St. Louis
Behrens, Gerald L., St. Louis
Beidle, Raymond J., St. Ann
Beis, Louis D., St. Louis
Belancourt, Dunet F., St. Louis
Belden, Edgar A., Jefferson City
Belew, Joe E., St. Louis
Bell, Robert M., St. Louis
Bell, William F., Lee's Summit
Benage, Clarence M., St. Louis
Bence, Jackson J., Kansas City
Benjamin, Durand, St. Louis
Bennett, James D., Kansas City
Benoit, Hector Wright, Jr., Kansas City
Benson, John F., St. Louis
Benson, Leo J., Jr., Kennett
Benson, Scott C., St. Joseph
Benson, William F., Kansas City
Bentley, John D., Springfield
Benton, Calvin B., St. Louis
Berard, Louis N., St. Louis
Berenson, Sheldon E., Kansas City
Berg, Leonard, St. Louis
Berg, Ralph, St. Louis
Berger, Edward J., St. Louis
Bergman, Hugo F., St. Louis
Bergmann, Dwayne, St. Louis
Bergmann, John F., St. Louis
Bergmann, Martin, St. Louis
Bergmann, Victor H., Kansas City

Bergner, Grace E., St. Louis
Berland, Harry I., St. Louis
Berman, William, St. Louis
Bernard, J. W., Caruthersville
Berndsen, Gerard H., Rock Hill
Berney, Francis J., St. Joseph
Bernreiter, Michael, Kansas City
Bernstein, Aaron M., Clayton
Berry, G. Neill, Kansas City
Berry, John W., St. Louis
Berry, Maxwell G., Kansas City
Berry, Paul T., Troy
Bersche, Bertram L., St. Louis
Berwald, Irwin I., St. Louis
Bess, William E., Sedalia
Best, Robert, Higginsville
Bettonville, Paul J., Jr., St. Louis
Bickel, Vern T., Lamar
Bickley, James E., Kansas City
Biddy, Ralph L., St. Louis
Biggs, Alfred D., Jr., Kansas City
Biggs, Fred J., Jr., Poplar Bluff
Biggs, Harry L., Kansas City
Bikales, Victor W., Kansas City
Biller, Hugh F., St. Louis
Bills, Marvin L., Kansas City
Bilsky, Nathan, St. Louis
Bindbeutel, Arthur H., St. Louis
Bindbeutel, Donald A., St. Louis
Binder, Morton A., St. Louis
Bingham, Hal G., Columbia
Bircher, John L., St. Louis
Birenbaum, Aaron, St. Louis
Birge, Clifford A., St. Louis
Birsner, Frank H., Carthage
Bishop, Marion D., Florissant
Bishop, Mary M., St. Louis
Bisno, Daniel, St. Louis
Black, Don A., Kansas City
Black, Eugene C., Kansas City
Black, Samuel P. W., Columbia
Black, Thomas C., Jr., Kansas City
Blacklock, David E., King City
Blackman, Nathan, Kirkwood
Blackmore, Thomas A., Windsor
Blackwell, Charles R., St. Louis
Blackwell, Charles W., Columbia
Blades, Ross D., Springfield
Bladow, Terrence C., Joplin
Blair, Vilray P., Jr., St. Louis
Blaisdell, Glenn D., Springfield
Blalock, Robert W., Marshall
Blank, Michael K., De Soto
Blankenship, Dale M., Cape Girardeau
Blankenship, George W., Neosho
Blim, Richard D., Kansas City
Block, Arnold S., St. Louis
Bloom, W. A., Fayette
Blount, Lee, Jr., St. Louis
Bockelman, Clifford H., Brentwood
Boedeker, Roy V., St. Louis
Boemer, Lilburn C., St. Louis
Boger, James W., Sedalia
Bohne, Wm. R., Fort Wayne, Ind.
(Member St. Louis Medical Society)
Bohnsack, Ralph W., Brookfield
Bohrer, Harry C., St. Louis
Boldizar, Albert G., St. Louis
Boldt, Thomas H., St. Louis
Boles, Clifford R., Clayton
Boley, James O., Kansas City
Bolgar, Bertalan, Festus
Bolinske, Robert E., St. Louis
Bondurant, Bryce H., St. Louis
Bonebrake, M. D., Springfield
Bonfanti, Albert L., St. Louis
Boniuk, Isaac, St. Louis
Bonney, Samuel C., Washington
Boone, Daniel C., Kansas City
Bordy, Marvin D., Kansas City
Borenstine, Joseph, Kansas City
Borowsky, Benjamin A., St. Louis
Bortnick, Arthur R., St. Louis
Bortnick, Eugene, Kansas City
Boswell, John R., St. Louis
Boteler, George M., Kansas City
Botwin, Arnold E., Kansas City
Boucher, Robert E., Concord, N. H.
(Member St. Louis Medical Society)
Boughnou, Harvey P., Kansas City
Bourke, Timothy S., Kansas City
Boutros, Amin, Kansas City
Boveri, Joseph C., St. Louis
Bowdern, Edward H., Richmond Heights
Bowen, Stephen F., Jr., St. Louis
Bowerman, Harold H., St. Louis
Bowersox, Warren A., Pacific
Bowles, G. Robert, St. Louis
Bowles, Richard P., Liberty
Bowles, William T., St. Louis
Bowman, Melvin C., Neosho
Bowser, John F., Kansas City
Boyce, John Milton, Mexico
Boyd, Arthur M., St. Louis
Boyd, George K., Kansas City
Boydston, Catherine, Odessa
Boydston, W. Wayne, Odessa
Boyer, Philip A., Jr., Kansas City
Boylan, Peter C., Kansas City
Bozzo, Raymond J., Washington
Braby, Howard H., Independence
Bradford, John F., Kansas City
Bradley, Frank R., St. Louis
Bradley, Richard V., Clayton
Bradley, William W., Centralia
Bradshaw, W. D., Clinton
Brady, Arthur M., Kansas City
Brady, Charles H., Sedalia
Brady, Harry R., St. Louis
Brady, Hugh S., Concordia
Brams, Jack B., Kansas City
Brand, Earl L., Webster Groves
Brangle, Robert W., St. Louis
Brasher, Ben H., Lexington
Brasher, Charles A., Mt. Vernon
Braufman, Harvey S., St. Louis
Braverman, Abe E., Kansas City
Braverman, Elliot M., Sedalia
Brazos, John C., Smithton
Bregant, Robert E., Jefferson City
Bremser, Harry L., St. Louis
Brennan, George A., St. Louis
Brennan, John A., St. Louis
Brennan, Patricia A., St. Louis
Brennan, Raymond J., Chillicothe
Brennan, Robert A., St. Louis
Brennan, Robert V., St. Louis
Brenner, Paul A., Owensville
Brereton, Robert L., Kirkwood
Bricker, Eugene M., St. Louis
Bricker, Neal S., St. Louis
Brielmaier, Charles R., St. Louis
Brinker, Ray A., St. Louis
Briscoe, John R., Maplewood
Bristow, Robert B., St. Joseph
Broaddus, Loren, Springfield
Brock, Bernard, Prairie Village, Kans.
(Member Jackson County Medical Society)
Brodeur, Armand E., Kirkwood
Bronson, Shael S., St. Louis
Brooke, Clement E., Columbia
Brookes, Robert D., St. Louis
Brookreson, Alton D., Poplar Bluff
Brookreson, Alton F., Poplar Bluff
Brooks, John M., Springfield
Brother, George M., St. Louis
Broun, Goronwy O., St. Louis
Broun, Goronwy O., Jr., St. Louis
Brown, Adrian J., Kansas City
Brown, Daniel W., San Diego, Calif.
(Member St. Louis Medical Society)
Brown, E. Eugene, St. Louis
Brown, Elwyn S., Kansas City
Brown, Frederick B., Aurora
Brown, Irwin S., Kansas City
Brown, James B., St. Louis
Brown, James M., St. Louis
Brown, James T., Springfield
Brown, John J., Fulton
Brown, Katherine S., Fulton
Brown, Lyman D., Springfield
Brown, Menzie H., Kansas City
Brown, Michael W., St. Louis
Brown, Richard M. St. Louis
Brown, Robert S., Kansas City
Brown, Seymour, St. Louis
Brownsberger, Robert H., Appleton City
Broyles, Watkins A., Bethany
Bruce, Helen L., St. Louis
Bruce, James G., Jefferson City
Bruce, Leo A., Sikeston
Bruce, Paul C., Excelsior Springs
Brugger, Thomas, St. Louis
Brukardt, Diane, Columbia
Brumm, Lawrence W., Kansas City
Bruner, Claude R., Columbia
Bruner, Robert E., Kansas City
Bruns, Kenneth, University City
Brust, Carl H., Mission, Kan.
(Member Jackson County Medical Society)
Bryan, James H., Clayton
Bryan, William H., Jr., Kansas City
Bryan, William T. K., St. Louis
Bryant, Sydney L., St. Joseph
Bryant, T. J., Kansas City
Buben, Robert W., Kirksville
Buckingham, William, Kansas City
Buckner, Robert C., Kansas City
Buckthorpe, Thelma C., Sikeston
Budd, John J., Jr., St. Louis
Budke, Harold A., Kansas City
Buehler, Carl T., Jr., Eldon
Buesseler, John A., Columbia
Bugg, Andrew F., Lordsburg, N. M.
(Member Mineral Area County Medical Society)
Bugg, George W., Ft. Ord, Calif.
(Member St. Louis Medical Society)
Buhler, Victor B., Kansas City
Buie, Bruce R., Kansas City
Bull, Ben M., Ironton
Bumgarner, James E., Columbia
Bumgarner, Roger W., Columbia
Bunting, Williston P., Kansas City
Burch, Buford H., Kansas City
Burch, John E., Joplin
Burcham, Tom R., Jr., Farmington
Burford, Cyrus E., St. Louis
Burford, Edwin K., Jr., Cape Girardeau
Burford, Thomas H., St. Louis
Burk, E. K., Kansas City
Burke, Robert J., St. Louis
Burkeholder, James N., Sedalia
Burkey, Jordan W., Springfield
Burkhart, Charles A., St. Louis
Burkhart, Edward F., St. Louis
Burks, Jess E., St. Louis
Burmeister, R. William, St. Louis
Burns, Beryl I., Columbia
Burns, Francis J., St. Louis
Burns, Francis R., Hannibal
Burns, Thomas J., Springfield
Burns, Thomas W., Columbia
Burnside, Charles R., Kirkwood
Burry, Virgil F., Kansas City
Burst, Donald O., St. Louis
Burstein, Robert, St. Louis
Burton, Dale F., Wellington, Ill.
(Member St. Louis Medical Society)
Busch, Anthony K., St. Louis
Busiek, Erwin F., Springfield
Busiek, Paul J., Springfield
Busiek, Urban J., Springfield
Bussmann, Donald W., St. Louis
Butcher, Harvey R., Jr., St. Louis
Butcher, Robert W., Kansas City
Butler, E. F., St. Joseph
Butsch, Richard H., St. Louis
Butterworth, Nelson S., Kansas City
Butts. James D., Rolla
Byars, Louis T., St. Louis
Byers, Philip L., Kansas City
Byland, Benjamin F., Maryville
Byland, Samuel J., Wellsville
Bynum, William R., Columbia
Byrne, John E., St. Louis

C

Caciolo, Carlo, St. Louis
Cacioppo, Joseph E., St. Louis
Cada, Edward G., Warrensburg
Cadbury, Jane B., North Mankato, Minn.
(Member St. Louis County Medical Society)
Cadice, John B., St. Louis
Caffrey, Raymond J., Kansas City
Cain, Alvin R., Lamar
Cain, Charles F., Caruthersville
Caldwell, Fred, Poplar Bluff
Caldwell, John K., Kansas City
Calkins, Delevan, St. Louis
Callahan, Donald E., Jennings
Callahan, Joseph D., St. Louis
Callaway, Guy D., Springfield
Callaway, Guy D., Jr., Springfield
Callihan, Charles F., West Plains
Callman, George, St. Joseph
Calodney, Martin M., St. Louis
Calovich, Emery R., Kansas City
Camel, H. Marvin, St. Louis
Camp, Richard V., Jr., Poplar Bluff
Campbell, A. J., Sedalia
Campbell, Cecil S., St. Louis
Campbell, Edward D., Cape Girardeau
Campbell, Frederick B., Kansas City
Campbell, James E., Macon
Campos, Francisco J., St. Louis
Canaan, Samuel A., Jr., St. Louis
Cancelada, Juan, Bowling Green
Canlas, Emilio M., Poplar Bluff
Cannon, Edward M., St. Louis
Canty, Eugene J., St. Charles
Capetti, Alex P., Crane
Cappel, Powel B., St. Louis
Capps, Eugene C., Kansas City
Carleton, Charles E.. Jr., Farmington
Carlin, Albert L., Stanberry
Carlin, M. Richard, St. Louis
Carlson, Arne E., St. Louis
Carlson, Hjalmar E., Kansas City
Carmichael, Francis A., Jr., Kansas City
Carmona, Gilberto V., University City
Carnell, B. M., Camdenton
Carnes, Victor M., Joplin
Carpenter, George T., St. Joseph

Carpenter, Wallace, Rockport
Carr, Archie D., St. Louis
Carr, G. Thomas, St. Louis
Carranza, Mauro J., Hillsboro
Carrier, John A., St. Louis
Carrington, Howard W., Lebanon
Carroll, George A., St. Louis
Carroll, Grayson, St. Louis
Carroll, Percy J., Clayton
Carroll, Thomas W., Lamar
Carron, Joseph F., Arnold
Carron, Oscar A., Perryville
Carson, Richard A., Ballwin
Carter, Edwin E., Clayton
Carter, Howard, Hamilton
Carter, James R., Neosho
Carter, John F., St. Louis
Cartwright, Robert S., Columbia
Caruso, Alfred A., Kansas City
Cary, John M., St. Louis
Casady, Gilbert N., Kansas City
Casas, Julian R., St. Louis
Case, William F., Kansas City
Casebolt, Buford T., Kansas City
Casey, Edwin J., St. Louis
Cash, Charles R., Kennett
Cason, Elbert H., St. Louis
Cassel, Melvin A., St. Louis
Castelaw, Rush E., Kansas City
Castillo, Michael E., Kansas City
Catalano, J. Denis, Maryland Heights
Catanzaro, Anthony F., St. Louis
Catanzaro, Francis J., St. Louis
Catanzaro, Marshall J., Biloxi, Miss.
(Member St. Louis Medical Society)
Catanzaro, Rudolph E., St. Louis
Cavanagh, Denis, St. Louis
Cavaness, Ernest W., Encinitas, Calif.
(Member Jackson County Medical Society)
Cejas, Leandro P., Sikeston
Centner, Paul J., Kansas City
Chalkley, Judson I., Columbia
Challener, William A., III, St. Joseph
Chamberlain, Gilbert L., Boonville
Chambers, James Q., Jr., Kansas City
Chamness, James T., St. Louis
Chandler, Robert A., Kansas City
Chaplin, Hugh, Jr., St. Louis
Chapman, Charles L., Columbia
Chapman, David W., Independence
Chapman, James H., Kansas City
Chapman, Jean A., Cape Girardeau
Chapman, Samuel B., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Charles, Benjamin H., St. Louis
Charles, Cecil M., Clayton
Charnas, Raymond M., St. Louis
Chase, Ned B., Jr., Joplin
Chastain, Charles W., Farmington
Cheek, Charles W., Columbia
Cheek, J. William, Springfield
Cheng, Alfred K., APO New York, N. Y.
(Member Jackson County Medical Society)
Chernoff, Selbert G., Kansas City
Cherre, Anthony J., St. Louis
Cherre, Charles J., St. Louis
Chesanow, Robert L., St. Louis
Chesney, George W., Joplin
Chiasson, E. Chaille, Columbia
Chieffi, Margaret, St. Louis
Childs, Donnalea S., Kansas City
Childs, Richard M., Kansas City
Chiles, David R.. Smithville
Chinsky, Murray, St. Louis
Chou, Yen Ping, Koch
Christ, Martin H., St. Joseph
Christensen, Roger F., Louisiana
Christianson, Charles S., Mt. Vernon
Christy, Raymond A., Springfield
Chute, W. Deward, Moberly
Ciampa, Thomas, St. Louis
Ciapciak, Stanley J., St. Louis
Clark, Clarence L.. St. Louis
Clark, Irving H., Kansas City
Clark, Kendall A., Jefferson City
Clarke, Michael J., Springfield
Clary, William F., Springfield
Claseman, Wilma W., St. Louis
Clasen, Arthur C., Miami Beach, Fla.
(Member Jackson County Medical Society)
Clawson, James W., Springfield
Clayton, Edgar L., Springfield
Cleary, Frank, St. Louis
Cleveland, Horace F., Long Beach, Calif.
(Member St. Louis Medical Society)
Clever, Henry W., Jr., St. Charles
Cline, Harold H., Piedmont
Cline, Merle A., Kansas City
Clisham, John F., Hannibal

Clithero, William H., Duarte, Calif.
(Member St. Louis Medical Society)
Cloyd, Mason D., Washington, D. C.
(Member St. Louis Medical Society)
Coates, Thomas A., St. Louis
Cobb, James R., Kansas City
Coben, Lawrence A., St. Louis
Coburn, Donald F., Kansas City
Cochran, Donald Q., Columbia
Cochran, Jo R., Cape Girardeau
Cochran, Thomas E., Jr., Springfield
Cochrane, Joseph J., Kansas City
Cockerell, Sanford F., Independence
Coffee, Amos L., Willow Springs
Coffey, Ralph R., Kansas City
Coffin, Theodore A., Kansas City
Coffman, Esther E. L., Lakeworth, Fla.
(Member Ozarks Medical Society)
Cohen, Benjamin H., Clayton
Cohen, Frank, St. Ann
Cohen, Harry K., Kansas City
Cohen, Hillard K., St. Ann
Cohen, Robert S., University City
Cohle, Richard R., Carthage
Cohrs, Clarence C., Moberly
Cokingtin, Leovigildo, Independence
Cokrhame, Jack, Florissant
Colbert, Robert S., Sikeston
Coldwater, Kenneth B., St. Louis
Cole, William R., St. Louis
Colglazier, Mary C., Kansas City
Collantes, Jose L., Nevada
Coller, Frederick B., Springfield
Collins, Gretchen D., Macon
Collins, John A., St. Louis
Collins, John M., St. Louis
Collodi, George A., Brentwood
Colom, George A., Kansas City
Colwill, Jack M., Columbia
Comeau, Richard A., Dexter
Comens, Phillip, St. Louis
Comens, Ruth C., St. Louis
Comer, J. Russell, Beaufort, S. C.
(Member Jackson County Medical Society)
Comerci, George D., St. Louis
Commerford, John F., St. Charles
Compton, James R., Sarasota, Fla.
(Member St. Louis County Medical Society)
Cone, Alfred J., Chesterfield
Connell, Evan S., Kansas City
Conrad, Adolph H., Jr., Clayton
Conrad, Joseph A., Chillicothe
Conrad, Marshall B., St. Louis
Conrad, Raymond C., Springfield
Cook, Galen B., Columbia
Cook, James R., Springfield
Cook, O. W., Caruthersville
Cook, Thomas B., Richmond
Cook, William R., Jr., St. Louis
Cooper, Charles S., Kansas City
Cooper, Charles W., Jefferson City
Cooper, Claude W., Thayer
Cooper, Henry T., St. Louis
Cooper, James F., Florissant
Cooper, John H., Kansas City
Cooper, Lawrence E., Ft. Myers, Fla.
(Member Pemiseot County Medical Society)
Cooper, Leo F., Kansas City
Cooper, Maurice E., Columbia
Cooper, R. Lee, Warrensburg
Cooper, Theodore, Bethesda, Md.
(Member St. Louis Medical Society)
Cooper, Thomas J., St. Louis
Cope, James C., Columbia
Cope, Joseph S., Lexington
Copher, Glover H., St. Louis
Coppinger, Thomas A., Kansas City
Corday, Robert J., St. Louis
Cordonnier, James K., Springfield
Cordonnier, Justin, St. Louis
Correnti, Nicholas A., St. Louis
Cortner, Mary C., Kansas City
Costa, Dominic V., St. Louis
Costello, Cyril J., St. Louis
Costello, Joseph P., Jr., Brentwood
Costen, William S., St. Louis
Costrino, Joseph A., St. Louis
Cotlier, Edward, Great Lakes, Ill.
(Member St. Louis Medical Society)
Cottey, J. H., APO New York, N.Y.
(Member Lincoln-St. Charles County Medical Society)
Coughlin, Bertrand D., St. Louis
Courter, Larry P., Kansas City
Cowdry, Edmund V., Jr., St. Louis
Cowherd, Joseph B., Kansas City
Cox, John P., St. Joseph
Cox, Kenneth E., Kansas City
Cox, Mary E., St. Louis
Cox, Robert D., University City

Cox, William A., Jefferson City
Cox, William L., Liberty
Coxe, William S.. St. Louis
Cozart, Duane E., Chesterfield
Craig, Alan G., St. Louis
Craig, Irwin T., Joplin
Craig, Owen W. D., St. Joseph
Craig, Richard O., St. Joseph
Crain, James W., Branson
Cramer, Quentin, Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Crawford, Archie L., Joplin
Crawford, Katherine J., University City
Crawford, Oral B., Springfield
Crawford, Robert M., Sullivan
Crayton, Billy G., Waverly
Creech, Joseph C., Troy
Crego, Clarence H., Jr., St. Louis
Cremer, William J., Fulton
Cresswell, George F., Potosi
Crews, Robert N., Fulton
Crider, Russell J., St. Charles
Criscione, James R., St. Louis
Criseione, James S., Scott A. F. Base, Ill.
(Member St. Louis Medical Society)
Crispell, Lawrence S., Joplin
Critchlow, Wm. C., Sikeston
Crocker, Albert M., Kansas City
Crockett, James E., Kansas City
Croom, Dorwyn W., Malden
Crosby, Aliee S., Columbia
Cross, Albert D., Trenton
Crossman, Robert W., Webster Groves
Crotty, John P., Ft. Leonard Wood
Crouch, F. Richard, Farmington
Crow, Martin L., Kansas City
Crowe, John T., Cape Girardeau
Crowell, Hugh C., St. Louis
Crozier, Franklin A., Richmond
Cuddihee, Robert E., Jr., San Francisco, Calif
(Member St. Louis Medical Society)
Culbertson, William F., Kansas City
Culley, Thomas S., Columbia
Cullum, Albert G. J., Middlesboro, Ky.
(Member St. Louis County Medical Society)
Cunningham, Darral D., Springfield
Cunningham, E. J., Jr., Columbia
Curiel, Manuel S., Kansas City
Curran, Desmond, Kansas City
Curts, Calvin J., Kansas City
Cutcliff, Daniel J., Kansas City
Cutler, Harold M., St. Louis
Cutler, Harry, St. Louis
Czebrinski, Edward W., St. Louis

D

Daake, John W., St. Louis
Dabbs, Wilbur D., Neosho
Dahm, Charles H., Jr., St. Louis
Dahms, Gustave, St. Louis
Daley, Frank R., Hamilton
Dalton, Arthur R., St. Louis
Dalton, Timothy T., Kansas City
Daman, George A., St. Louis
Dames, Richard J., St. Louis
Damron, Edward O., Elsberry
Damron, Oscar H., Warrensburg
Danforth, William H., St. Louis
Danis, Peter G., St. Louis
Danis, Richard K., St. Louis
Dankner, Arnold, Clayton
Dann, David S., Kansas City
Darnell, Thomas F. B., Columbia
Dash, Ira, St. Louis
Dash, Udaya N., St. Louis
Daughaday, William H., St. Louis
Daum, Harold F., Sedalia
Davault, George K., Richmond
Davidson, Kendrick C., Kansas City
Davidson, Morris, Clayton
Davie, Joseph, St. Louis
Davis, C. Braxton, Nevada
Davis, David, Columbia
Davis, David O., St. Louis
Davis, Donald R., Kansas City
Davis, Edgar W., St. Louis
Davis, Frank L., St. Louis
Davis, Herbert V., Kansas City
Davis, Jack M., Kansas City
Davis, John J., Overland Park, Kan.
(Member Jackson County Medical Society)
Davis, Kenneth A., Kansas City
Davis, Landis Y., Canton
Davis, Leonard L., Jr., Knoxville, Tenn.
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Davis, Martin W., St. Louis
Davis, Richard E., Kansas City

Davis, Robert C., Kansas City
Davis, Wilbur L., Charleston
Day, Anthony B., Marshall
Day, John K., Columbia
Day, Maxwell, St. Joseph
Deakin, Rogers, St. Louis
Dean, Francis D., Fayette
Dean, Lee W., Jr., St. Louis
Decker, Albert I., Kansas City
DeGenova, Gerald H., Ste. Genevieve
DeHovitz, Bernard, St. Louis
Deitchman, Robert B., St. Louis
De Jesus, Alberto, St. Louis
de la Torre, John J., Sullivan
Deles, Vincente D., Crystal City
Del Pizzo, Ferdinand, St. Charles
DeMaria, Peter F., Kansas City
Demko, William, St. Louis
DeMott, John D., Kansas City
DeMotte, John A., Kansas City
Dempsey, Herbert A., Lee's Summit
Denk, Alan F., St. Louis
Denney, Richard W., Mountain Grove
Dennie, Charles C., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Denninghoff, James C., Columbia
Dennis, W. Paul, Flat River
Denny, Hubert M., Union
Dernoncourt, John E., Smithville
DeTar, Burleigh E., Joplin
Dettmer, Robert F., Ironton
Deutch, Max, St. Louis
Devine, John B., St. Louis
Devine, Mark W., Jr., Kansas City
Devins, George S., Kansas City
Dewald, Paul A., St. Louis
DeWeese, Marion S., Columbia
Dewein, Edward G., St. Louis
Dexheimer, Frank R., Columbia
Deyton, John W., St. Louis
Dick, Earl, St. Louis
Dickerson, Omar B., Cleveland, Ohio
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Dickler, Donald J., St. Louis
Diehr, Maurice A., St. Louis
Diekroeger, Manuel L., Boonville
Diemer, Peter A., Fairfax, Va.
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Dietrich, Karl D., Columbia
Dietz, M. Wendell, Springfield
DiLeo, Senatro W., Jennings
Dill, Foster A., Maplewood
Dillard, Burl M., St. Louis
Dillard, Erin M., Springfield
Dills, Joseph N., Springfield
Dinelli, Frank E., Poplar Bluff
Dinkins, James A., Cape Girardeau
Diveley, Rexford L., Kansas City
Dixon, John R., Brookfield
Dixon, Vewiser L., Kansas City
Dlabal, Luke J., Independence
Dmytryk, Eugene T., St. Louis
Doane, William L., Grandview
Dodd, Robert B., St. Louis
Dodge, Mark, Kansas City
Dodge, Milton, Shawnee Mission, Kan.
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Dodge, Philip R., St. Louis
Doering, Robert W., Kansas City
Doggett, Sylvester, Sikeston
Doisy, Philip P., St. Louis
Doisy, Robert A., Glendale
Dolan, Daniel L., Springfield
Dolan, John T., Jr., St. Louis
Dolezal, Joseph B., Kansas City
Domke, Herbert R., St. Louis
Donaldson, Robert C., St. Louis
Donati, Robert M., St. Louis
Donegan, Judith H., Columbia
Donegan, William L., Columbia
Donley, Leo F., Jr., St. Louis
Donley, Robert R., Monett
Donnell, Harold E., De Soto
Donnell, Robert H., Crystal City
Donnell, Thomas A., DeSoto
Dorsch, Ervin H., Independence
Dorton, Robert K., St. Louis
Dovenmuehle, Robert H., Kansas City
Dowd, James F., Jr., St. Louis
Dowell, Donald M., Chillicothe
Dowell, J. Larry, Pattonsburg
Downey, James W., Kansas City
Doyle, Charles R., St. Louis
Doyle, Matthew J., Jefferson City
Drace, Charles C., Jr., St. Louis
Drake, Avery A., Rolla
Drake, Roy F., Kansas City
Drake, William K., Collinsville, Ill.
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Draney, Thomas E., Kansas City
Draper, Bernard, Columbia
Dreher, Richard L., Kansas City
Drennan, James A., St. Louis
Drescher, Emmett B., St. Louis
Drews, Robert C., St. Louis
Drey, Norman W., St. Louis
Dreyer, Carl J., Webster Groves
Dreyer, Philip V., Huntsville
Dreyer, William F., Houston
Drisko, Robert M., Kansas City
Drowns, Bruce V., Kansas City
Drum, Helen M., St. Louis
Dubuque, Theodore J., Jr., St. Louis
Duckworth, Gordon L., Jr., Hayti
Duden, Charles W., St. Louis
Duemler, John H., St. Louis
Duemler, Robert H., St. Louis
Duer, Mildred C., Kansas City
Duffy, Adrian, Marshall
Duffy, Eileen, Marshall
Duffy, Francis G., St. Louis
Duffy, Oliver F., Trenton
Duggan, John J., Jr., Kirkwood
Dulick, Michael, Brentwood
Duling, Gerald J., St. Charles
Dumonceaux, Leonard J., St. Louis
DuMont, Clement C., St. Joseph
DuMontier, R. J., O'Fallon
Dunaway, Howard A., Sikeston
Duncan, Robert D., Springfield
Duncan, Wm. H., Kansas City
Dunham, Robert H., N. Kansas City
Dunleavy, James D., Kansas City
Dunmire, George Q., Kennett
Dunn, Robert E., St. Louis
Dunshee, Robert E., Maryville
DuPont, Jean-René, Sikeston
Durnell, Monaford D., Lee's Summit
Durr, Jon W., Florissant
Durst, Henry, Fulton
Dworkin, Saul, St. Louis
Dwyer, Frank X., Kansas City
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Dwyer, Thomas L., Mexico
Dyer, Dallas J., St. Louis
Dzundzer, Penco, St. Louis

E

Eades, Dee W., St. Louis
Eades, Joseph W., St. Louis
Eagleton, Mark D., Clayton
Eanet, Morton P., Kansas City
Earp, Ralph K., St. Louis
Eastwood, Robert A., Springfield
Ebel, Eugene H., St. Louis
Eber, Carl T., St., Louis
Eberle, John P., St. Louis
Eberle, Vincent L., St. Louis
Echterhoff, Harry R., St. Louis
Eck, Birkle, St. Louis
Ecker, Decider, Pacific
Eckert, Clarence T., St. Louis
Ecklund, Archibald M., San Diego, Calif.
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Edele, Eugene H., St. Louis
Edelman, Alan H., St. Louis
Edmonds, Robert W., Sedalia
Edwards, D. R., Sedalia
Edwards, Francis L., Monett
Edwards, James E., St. Louis
Edwards, Joseph C., St. Louis
Edwards, Theodore F., Kansas City
Edwards, Waldo B., Kirkwood
Efron, Joseph, St. Louis
Efstathianos, Kimon, St. Louis
Egan, Robert C., St. Louis
Egan, Thomas F., St. Louis
Eggers, George W. N., Jr., Columbia
Eggleston, Donald E., Macon
Eggleston, Thomas F., St. Louis
Eidelman, Jack R., St. Louis
Eigel, Edwin G., St. Louis
Eimer, Charles E., St. Louis
Eisemann, Gustave, Kansas City
Eisenmann, Benjamin P., New Haven
Ekern, H. Peter, Mexico
Eklund, Alfred W., Pleasant Hill
Eldenburg, Donald, Sedalia
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Elias, David J., Independence
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Eller, C. Howe, Clayton
Ellersieck, Dorothy M., St. Louis
Ellett, William H., Appleton City
Elliott, Raymond G., Kansas City
Elliott, Wade E., Kansas City
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Ellis, Calvin C., St. Louis
Ellis, Francis J., Springfield
Ellis, Harry L., Springfield
Ellison, Leroy E., Maplewood
Ellsasser, James C., St. Louis
Ellsworth, Willard, Cainsville
Elrod, Dennis B., Cape Girardeau
Elser, Otto H., Independence
Elson, Julius, St. Louis
Emerson, Reynolds L., St. Louis
Emmert, Fred, St. Louis
Engel, Lawrence P., Kansas City
Engelhardt, Robert C., Poplar Bluff
Engelking, David F., Kansas City
Engelmann, Calvin E., Kansas City
English, Milton T., Jr., Kirksville
English, Wallace D., Cardwell
Engman, Martin F., Jr., St. Louis
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Epple, Kathryn C., Mexico
Epple, Lawrence K., Mexico
Ernst, Edwin C., Jr., St. Louis
Ernst, Joseph G., St. Louis
Ernst, Richard E., St. Louis
Ernst, Roland P., St. Louis
Eshelman, Albert D., Independence
Esslinger, Arthur T. J., St. Louis
Estes, Albert M., Cape Girardeau
Estes, Jack M., St. Louis
Esther, John R., Joplin
Etienne, Robert B., St. Louis
Eto, Jackson, St. Louis
Eubank, David F., Kansas City
Eubank, Dillard M., Raytown
Eubank, William R., Kansas City
Eubank, William Y., Kansas City
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Evans, Harry T., Branson
Evans, Lawrence L., Kansas City
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Exon, C. Stuart, Jefferson City
Eyermann, Charles H., St. Louis
Eyermann, Edward L., Jr., St. Louis
Eyermann, H. Walter, Warrenton

F

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Fairchild, James F., Perryville
Fairshter, Alex E., St. Louis
Fakhoury, Donald A., Kansas City
Falk, O. P. J., St. Louis
Fallon, Richard H., St. Louis
Farley, Claude C., Kansas City
Farmer, Norma D., Farmington
Farney, Jacob P., Kansas City
Farnham, Milo M., Independence
Farnsworth, Jesse J., Kansas City
Farrell, Robert J., St. Louis
Farrell, S. L., Washington
Farthing, Fred R., Springfield
Farthing, Gene W., Springfield
Feierabend, Frank L., Kansas City
Feind, Earl E., Rolla
Feinstein, Leon A., St., Louis
Feist, George V., Kansas City
Feldaker, Robert M., St. Louis
Felder, James P., St. Charles
Feldman, David, St. Louis
Felix, Robert H., St. Louis
Feller, Harold H., St. Louis
Fellhauer, Carl M., St. Louis
Feltz, Lawrence W., Perryville
Ferguson, Donald S., Kansas City
Ferguson, John L., Springfield
Ferguson, John P., Jr., Springfield
Ferguson, L. H., Jr., Joplin
Ferguson, Luther J., St. Joseph
Ferguson, Ralph L., Joplin
Ferguson, Robert M., Webb City
Ferguson, Thomas B., St. Louis
Ferguson, Wilson J., Sikeston
Ferneau, James E., Columbia
Ferrara, John P., St. Louis
Ferrell, Thomas E., Jr., Springfield
Ferris, Carl R., Kansas City
Ferro, Anthony L., St. Louis
Ferry, Richard J., St. Louis
Finger, Donald H., St. Louis
Fingerhood, Marvin G., St. Louis
Fingert, Hyman H., St. Louis
Fink, LeRoy L., Florissant
Finkel, Barney W., St. Louis
Finkle, Robert H., Independence
Finley, Freeman L., St. Cloud, Fla.
(Member St. Louis County Medical Society)
Finn, Murray E., St. Louis

Finnegan, Joseph V., St. Louis
Finney, William O., Chaffee
Fischer, Edward H., N. Kansas City
Fischer, Erich, St. Louis
Fischer, Theodore, Altenburg
Fischer, Thomas J., Hannibal
Fish, Virgil O., St. Louis
Fisher, Joseph L., St. Joseph
Fisher, Stanley D., Sedalia
Fitch, G. H. Max, Springfield
FitzGerald, Leo P., St. Louis
Fitzgerald, Robert H., Kansas City
Fitzgerald, William T., St. Louis
Flance, Israel J., St. Louis
Flanders, Virgil E., Kansas City
Flanigan, George D., Jr., St. Louis
Flatley, John A., Kansas City
Flavan, David B., St. Louis
Fleishman, Alfred, St. Louis
Fleming, J. Will, Moberly
Fleming, Paul D., St. Louis
Fleming, Robert J., St. Charles
Fleming, Royall B., Kansas City
Fleming, Thomas S., Moberly
Fletes, James W., St. Louis
Florian, Albert J., Tucson, Ariz.
(Member Jackson County Medical Society)
Flotte, Bernard H., St. Louis
Flotte, Sylvester A., Jennings
Flynn, Edward P., St. Louis
Flynn, James M., Kansas City
Flynn, John T., St. Louis
Flynn, Joseph E., St. Louis
Flynn, Thomas T., St. Louis
Fogerson, Virginia L., Springfield
Folck, William P., Kansas City
Folkner, A. L., Warrensburg
Ford, Lee T., Jr., St. Louis
Ford, William, Farmington
Foreman, Phillip B., Hannibal
Forgrave, John R., St. Joseph
Forgrave, Leon P., St. Joseph
Forman, George W., St. Joseph
Forman, Louis H., Kansas City
Forsen, James A., Gower
Forsman, Waldo W., Jr., St. Louis
Forster, Armand C., St. Louis
Forsyth, B. Todd, St. Louis
Forsythe, Robert W., Kansas City
Forti, John J., St. Louis
Foster, Jack L., Desloge
Fotopoulos, Chris K., North Kansas City
Fouts, Dallas B., Sr., Independence
Fowler, Fred D., Kansas City
Fowler, I. Charles, N. Kansas City
Fowler, James W., Kansas City
Fowler, Marvin L., West Plains
Fox, Leon J., St. Louis
Fox, Robert E., St. Louis
Francis, William G., Springfield
Francka, W. Frank, Hannibal
Franco, Pilar Juan, Kansas City
Frank, Alvin R., St. Louis
Franklin, Curtis U., Kansas City
Franklin, Harold A., St. Louis
Franklin, Max S., St. Louis
Fraser, Richard A., Bonne Terre
Frawley, Thomas F., St. Louis
Frazier, Robert L., Charleston
Frech, Robert S., St. Louis
Frederick, Raymond O., St. Louis
Freedman, Aaron D., Kansas City
Freedman, Harold, St. Louis
Freedman, Ruth S., St. Louis
Freeman, David M., St. Louis
Freeman, Spencer L., Kirksville
Freiheit, Harold J., St. Louis
Freiman, S. Michael, St. Louis
Freimuth, L. E., St. Louis
Frein, Donald E., Leeton
Frerking, Herbert W., St. Louis
Freund, Samuel J., St. Louis
Frick, John P., Kansas City
Friedman, Bernard, St. Louis
Friedman, Ira J., St. Louis
Friedman, Morris L., Kansas City
Friedman, Paul L., St. Louis
Friedman, Robert H., St. Louis
Friedrich, Ernst R., St. Louis
Fries, Armand D., St. Louis
Fries, John W., St. Louis
Friskel, Arthur K., St. Louis
Fritsch, Andrew J., Joplin
Fritzlen, Thomas J., Kansas City
Froelich, Edwin J., Lebanon
Froelich, R. W., Lebanon
Froelich, Robert E., Columbia
Frumson, Guy H., St. Louis
Fryer, Minot P., St. Louis
Fuchs, George J., Barnett
Fuchs, George J., Jr., Columbia
Fuhrman, Donald L., Kansas City
Fujita, Milton T., St. Louis
Fulkerson, Wilbur E., Higginsville
Fulks, Richard B., California
Fullgrabe, Emil A., Jefferson City
Fulton, Albert E., Kansas City
Funsch, Robert E., St. Louis
Furla, Gus J., St. Louis
Furlow, Leonard T., Crystal River, Fla.
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Fury, Tex E., Kansas City
Fuson, Levi H., St. Joseph
Fuson, William A., Trenton

G

Gaffney, Caldwell J., St. Louis
Gafney, George T., St. Louis
Gagliardo, Joseph, St. Louis
Gaines, Quentin M., Kirkwood
Gainey, Harold L., Kansas City
Gaitonde, Mangesh R., Kansas City
Galbol, Harley, Excelsior Springs
Galbreath, Ashford M., Kansas City
Gale, Arthur H., Overland
Gale, Joseph F., Chillicothe
Gale, Philip R., St. Louis
Galeota, William R., Columbia
Galinsky, Leon J., Mt. Vernon
Gall, Ira, St. Louis
Gallagher, Lionel M., California
Gallagher, Neil I., St. Louis
Gandlmayr, Jack M., St. Louis
Ganley, William C., Kansas City
Gansloser, Wilbert M., Clayton
Gantner, George E., Jr., St. Louis
Gantt, Ernest S., Jr., Mexico
Gantz, John A., Affton
Garb, Solomon, Columbia
Garcia, Charles L., Mexico
Gard, Raymond F., Independence
Gardner, Joseph W., Reeds Spring
Garfinkel, Bernard T., St. Louis
Garfinkel, Lester S., Columbia
Garner, G. Josephine, Kansas City
Garner, Lynn M., Jefferson City
Garrett, Glen H., Columbia
Garrison, Roy F., Kansas City
Garrison, T. W., Camdenton
Gary, George, Marceline
Gaskins, Charles W., Ironton
Gaskins, John H., Kansas City
Gass, Michael, St. Louis
Gaston, Lamont W., St. Louis
Gaston, Samuel Lee, Joplin
Gauer, Robert J., Kansas City
Gaunt, Frank P., Webster Groves
Gaunt, William D., Columbia
Gay, Andrew J., St. Louis
Gay, Elizabeth K., Florissant
Gearhart, Merriam, Bethany
Gearhart, Wilbur H., St. Louis
Gedney, William B., Valley Park
Geha, Braham J., Kansas City
Geiger, William A., Jr., Kansas City
Geise, August W., Jr., St. Louis
Geisler, Gerald F., Great Lakes, Ill.
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Germuth, Frederick G., Jr., St. Louis
Gernstetter, Sangwill L., Poplar Bluff
Gerst, Aloysius G., St. Louis
Gibson, David M., Kansas City
Gibson, Helen F., St. Louis
Gibstine, Marvin H., St. Ann
Giddings, Frank C., Springfield
Giem, Ross N., Sullivan
Gieselman, Ralph V., St. Louis
Giesler, Donald H., Osceola
Gildea, Edwin F., St. Louis
Gildea, Margaret C. L., St. Louis
Gilden, Jerome J., St. Louis
Gilfillan, Earl E., Memphis
Gilkey, Harry M., Kansas City
Gillen, Billy A., Kansas City
Gillespie, William J., St. Louis
Gilliland, Charles E., Cameron
Gillispie, Roy, Branson
Gilpin, Doris C., St. Louis
Ginardi, Donald E., Kansas City
Ginsberg, Norman A., Kansas City
Gish, Rutledge, Fulton
Gist, William W., Kansas City
Gitt, Joseph J., St Louis
Gladney, John H., St. Louis
Glasgow, David S., Crystal City
Glass, Robert L., Sedalia
Glass, William J., Jr., Monett
Glassberg, Bertrand Y., St. Louis
Glasscock, Ernest L., Kansas City
Glenn, Edward A., III, Kansas City
Glenn, Elmer E., Springfield
Glick, Harry N., St. Louis
Glover, Kenneth, Mt. Vernon
Glynn, Robert R., Springfield
Gnade, Albert J., St. Louis
Goebel, Joan M., St. Louis
Goell, Robert S., St. Louis
Goldberg, Isadore E., Braymer
Goldenberg, Sidney, St. Louis
Goldenson, Max J., St. Louis
Goldfarb, Alvin, St. Louis
Goldkamp, John D., St. Charles
Goldman, Alfred, St. Louis
Goldman, Arnold M., St. Louis
Goldman, Hyman J., St. Louis
Goldman, Melvin L., St., Louis
Goldman, Stanley L., Kansas City
Goldring, Sidney, St. Louis
Goldsich, Edward, Kansas City
Goldstein, Bernard, St. Louis
Goldstein, Marcy A., St. Louis
Goldstein, Marvin F., Kansas City
Goldstein, Phillip J., Encino, Calif.
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Gomez, Cesar A., Jr., St. Louis
Gonser, Karl B., Sedalia
Gonzalez, M. Garza, Warrensburg
Goodman, J. N., Hardy, Arkansas
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Goodman, LeRoy, Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Goodman, Nathaniel, St. Louis
Goodrich, Harold A., Webster Groves
Goodson, Wm. H., Jr., Kansas City
Goodwin, Donald W., St. Louis
Goolsbee, Robert L., Kansas City
Gordon, James S., Jefferson City
Gordon, Morris P., Kansas City
Gore, Glenn L., St. Charles
Gorelick, David F., Springfield
Gorla, Wayne O., St. Louis
Gose, Don F., Springfield
Gottsch, Joseph C., Kansas City
Grabau, Gene H., St. Louis
Grable, James D., Portageville
Grabske, Charles F., Independence
Grabske, Charles F., Jr., Independence
Graeser, Richard G., St. Louis
Graff, Ralph J., St. Louis
Graham, James W., Kansas City
Graham, Patrick G., Kansas City
Graham, Wallace H., Kansas City
Graneto, Joseph A., St. Louis
Grant, Albert J., Hannibal
Grant, Claude S., St. Joseph
Grant, John M., St. Louis
Grant, Neville, St. Louis
Grant, Samuel B., St. Louis
Graul, Elmer G., St. Louis
Graul, Walter P., St. Louis
Graves, Arthur J., Mt. Vernon
Gray, Walter C., St. Louis
Greaney, John F., St. Louis
Grebel, Clement B., St. Louis
Green, J. Richard, Independence
Green, Manuel E., St. Louis
Green, Stanley L., Independence
Green, William L., St. Louis
Green, William R., St. Louis
Greenberg, Charles, Los Angeles, Calif.
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Greene, Harry L., Hannibal
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Greenman, Marshall B., Clayton
Gregory, Ralph W., Kansas City
Gresick, Robert J., St. Louis
Griege, Charles W., Florissant
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Griffin, Olin A., Jr., Buffalo
Griffin, William T., Columbia
Griffith, John A., Jr., Kansas City
Griffith, John K., Arnold
Griggs, James Y., St. Louis
Grim, Edward M., Kirksville
Grimes, Manning E., St. Joseph
Grindon, Alfred J., St. Louis
Grindon, Joseph B., St. Louis
Groce, George, Fulton
Gronau, Axel R., St. Louis

Grossman, Marvin, Fredericktown
Grove, Gulp W., Knobnoster
Growdon, John A., Shawnee Mission, Kan.
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Grubb, Paul H., Joplin
Grueb, Paul M., St. Louis
Gruenfeld, Gerhard E., St. Louis
Grunberg, Emile, Columbia
Grundmann, William H., St. Louis
Guastello, Mario J., Portsmouth, Va.
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Gubin, Alan S., Caruthersville
Guccione, Joseph B., St. Louis
Guhleman, Henry V., Jr., Jefferson City
Guldner, Edmond, Lamar
Gulick, Charles R., St. Louis
Gullett, Charles C., Kansas City
Gummels, Belmont B., St. Louis
Gundle, Sigmund, Kansas City
Gunn, Jack, Versailles
Gunn, Richard W., Kansas City
Gunn, Walter T., St. Louis
Gunter, Joe S., St. Joseph
Gurnee, Landon H., Jefferson City
Guthrie, Richard A., Columbia
Guze, Samuel B., St. Louis

H

Habib, Henry N., Kansas City
Hackett, Paul R., St. Louis
Hackmeyer, Rubin, St. Louis
Haddock, James N., Webster Groves
Haffner, Heinz, St. Louis
Haffner, Joel J., Kansas City
Hagan, Daniel J., St. Louis
Hagar, David L., Kansas City
Hagebusch, Omer E., St. Louis
Hagemann, Paul O., St. Louis
Haggen, Margaret E., Lawrence, Kan.
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Haith, Edward E., Kansas City
Haith, Walter F., Kansas City
Haley, Ted M., Kansas City
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Hall, David W., Springfield
Hall, Durward G., Springfield
Hall, Eugene W., Ferguson
Hall, James W., Kansas City
Hall, Lee A., Clayton
Hall, Marvin F., Joplin
Hall, Preston C., St. Louis
Hall, Ralph R., Kansas City
Hall, Robert A., St. Louis
Hall, Thomas B., Arrow Rock
Hall, William K., St. Louis
Hallaba, M. A. S., Joplin
Halloran, Mark J., St. Louis
Halperin, Phillip H., Kansas City
Halpern, Lawrence K., St. Louis
Hamel, Herbert A., Kansas City
Hamill, Robert W., Kansas City
Hamilton, Caldwell K., Creve Coeur
Hamilton, Eugene G., Clayton
Hamilton, Eugene H., Joplin
Hamilton, William P., Aurora
Hamlin, Wyeth, Hannibal
Hammes, Roman E., St. Charles
Hammler, Christiana V., St. James
Hammond, David T., St. Louis
Hammond, John J., St. Louis
Hampton, Henry E., St. Louis
Hampton, Oscar P., Jr., St. Louis
Hampton, Stanley F., St. Louis
Hamtil, Lawrence W., Kansas City
Hanan, Ernest B., Springfield
Handler, Eric, St. Joseph
Handler, Fred P., Jefferson City
Hanes, Lee D., Latham, N. Y.
(Member Jackson County Medical Society)
Hanes, Robert L., Kansas City
Hankin, Norman M., St. Louis
Hanlon, C. Rollins, St. Louis
Hanlon, Russell C., St. Charles
Hanna, Fikri M., Columbia
Hanna, Hugh A., Warrensburg
Hanna, Richard E., St. Louis
Hannas, Raymond R., Jr., Kansas City
Hansbrough, Eugene T., Poplar Bluff
Hansel, French K., St. Louis
Hansen, Arthur L., Butler
Hanser, S. Albert, St. Louis
Hanser, Theodore H., St. Louis
Hanss, Armand W., Springfield
Hantman, Stephen L., Bridgeton
Hardacre, Ruth A., Kansas City
Hardin, William B., Jr., St. Louis
Hardwicke, Henry M., Ashland
Hardy, Guerdan, Clayton
Hardy, Henry M., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Hardy, John W., Kansas City
Hardy, Joseph A., Jr., St. Louis
Hardy, Patrick J., Florissant
Hardy, Samuel W., St. Louis
Hardy, Stanton L., Desloge
Harell, Alex, St. Louis
Harford, Carl G., St. Louis
Harkins, William B., St. Louis
Harkness, Harry, Warrensburg
Harland, Robert E., Ironton
Harless, Morris S., Kansas City
Harlow, Lloyd M., Kansas City
Harmon, Ben C., Springfield
Harms, Florian L., Salisbury
Harms, James F., Nevada
Harned, Bert W., Kansas City
Harner, Casper G., St. Joseph
Harper, Fleming B., St. Louis
Harrell, Henry J., Summerfield, Fla.
(Member Dallas-Hickory-Polk County Medical Society)
Harrin, William R., Kansas City
Harris, Boyd L., Bethesda, Md.
(Member Jackson County Medical Society)
Harris, Charles W., St. Louis
Harris, Hugh S., Jr., Columbia
Harris, Robert J., Columbia
Harris, Solon P., St. Louis
Harrison, Lee B., St. Louis
Hart, L. Wayne, Kansas City
Hart, Martin M., Salem
Hart, William M., Columbia
Harting, Hugh R., St. Louis
Hartman, Paul T., St. Louis
Hartnett, Leo J., St. Louis
Hartstein, Jack, University City
Hartwig, Frederick H., Kansas City
Hartwig, John A., St. Louis
Hartwig, Raymond W., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Harvey, Harold D., Springfield
Harwell, J. Larry, St. Louis
Harwell, J. Lester, University City
Hasek, James A., Mountain Grove
Hasek, O. Martin, Mountain Grove
Hasenmueller, James J., St. Louis
Hash, Helen E., Kansas City
Hashinger, Edward H., La Jolla, Calif.
(Member Jackson County Medical Society)
Hasselblad, Oliver W., New York, New York
(Member North Central Medical Society)
Hasson, Robert, Moberly
Hata, Daikichi, Boonville
Hatfalvi, Bela I., St. Louis
Hauptmann, William L., St. Louis
Hausheer, Herman J., Independence
Haw, Marvin T., Jr., Columbia
Hawk, Bray O., St. Louis
Hawker, William D., St. Louis
Hawkins, George L., Jr., St. Louis
Hawkins, Lee W., Chesterfield
Hayden, Loyola F., St. Louis
Hayek, Wesley E., St. Louis
Hayes, Lawrence L., Kansas City
Hayes, Paul W., St. Joseph
Haynes, James W., St. Louis
Haynes, Pugh, Jr., St. Louis
Haynes, Robert C., Marshall
Haynes, Solon E., Kansas City
Haynie, William W., Butler
Hazen, Robert M., Kansas City
H'Doubler, Charles E., Springfield
H'Doubler, Francis T., Jr., Springfield
H'Doubler, Peter B., Springfield
Headrick, John A., St. Louis
Hecker, Joseph E., Poplar Bluff
Hedges, Richard C., Excelsior Springs
Heeb, Max A., Sikeston
Heideman, Milo L., St. Louis
Heidenry, Robert J., St. Louis
Heifetz, Carl J., St. Louis
Heilman, Edward J., Kansas City
Hein, Paul A., Jr., St. Louis
Heins, James N., St. Louis
Helbing, Edward J., Alameda, N. M.
(Member St. Louis County Medical Society)
Hellerstein, Stanley, Kansas City
Hellweg, Charles E., Mt. Vernon
Hellweg, Raymond W., St. Louis
Helm, James O., New Florence
Helman, Richard G., Kansas City
Henderlite, John W., St. Louis
Hendin, Aaron, Olivette
Hendren, Glenn W., Liberty
Hendren, Thomas H., Kansas City
Henke, Charles F., St. Louis
Hennelly, John J., St. Louis
Henry, Clarke Latta, Kansas City
Henry, Robert D., Harrisonville
Henschel, Eugene V., St. Louis
Herbert, Charles T., Cape Girardeau
Herman, Allen I., St. Joseph
Herman, Edwin M., Kansas City
Herman, Morris, St. Louis
Hernandez, Salvadore, St. Louis
Herrman, George V., Kansas City
Hershey, Falls B., Kenilworth, Ill.
(Member St. Louis County Medical Society)
Hertel, Ronald C., St. Louis
Herzog, Godofredo M., Florissant
Hetlage, Louis P., Troy
Heusler, Anton F., St. Louis
Heutel, Lee B., Ballwin
Heyer, Oscar C., St. Louis
Hibbard, Blaine Z., Kansas City
Hickerson, William H., Independence
Hickey, Glenn M., St. Louis
Hickey, James L., St. Louis
Hickey, Robert F., St. Louis
Hicks, Robert S., St. Louis
Higgins, Philip C., St. Louis
Hilbert, Paul H., St. Louis
Hildreth, H. Rommel, St. Louis
Hill, Jack H., Kansas City
Hill, James E., Fulton
Hill, XaCadene A., St. Louis
Hilliard, Alphonso W., St. Louis
Hilton, Paul E., Kirksville
Hinds, R. David, Hannibal
Hink, Frederick W., Independence
Hirsch, Joe E., Kansas City
Hite, Dennis E., Lebanon
Hoadley, William D., Kansas City
Hoard, Joseph W., Webster Groves
Hobbs, John E., St. Louis
Hoctor, Emmett F., Farmington
Hodge, Robert H., N. Kansas City
Hodgson, Frank H., Kansas City
Hoech, George P., Jr., Kansas City
Hoelscher, Harold F., Warrenton
Hoeper, Samuel D., Grandview
Hoffman, Jacob S., Kansas City
Hoffmann, Augustin D., St. Louis
Hoffmann, R. Lee, Prairie Village, Kan.
(Member Jackson County Medical Society)
Hoffmann, Ronald E., St. Louis
Hofling, Charles K., St. Louis
Hofstatter, Leopold, Affton
Hofstatter, Lilli, St. Louis
Hogan, Cornelius E., St. Louis
Hogan, Daniel F., Brownsville, Texas
(Member Jackson County Medical Society)
Hogan, John R., St. Louis
Hogan, Patrick C., St. Louis
Hogancamp, Charles E., St. Louis
Hogancamp, Glenn E., Ballwin
Hogeboom, George W., Delray Beach, Fla.
(Member Greene County Medical Society)
Hogue, Frank S., Kansas City
Hoja, W. Alexander, Poplar Bluff
Holbrook, Charles K., St. Louis
Holcomb, John K., Cape Girardeau
Holemon, R. Eugene, St. Louis
Holland, Robert D., Springfield
Holley, Donald B., Camdenton
Hollinger, Lloyd A., Kansas City
Hollingsworth, Ray S., Clinton
Hollis, Richard W., Springfield
Hollo, Vencel W., St. Louis
Holloway, Robert B., St. Louis
Hollweg, Kenneth C., Kansas City
Holmes, Daniel E., Springfield
Holmes, David R., Springfield
Holscher, Edward C., St. Louis
Holt, Earl P., Jr., St. Louis
Holt, Waldo S., Kansas City
Holt, William E., St. Louis
Holton, Edward B., Independence
Holtz, Alan S., St. Louis
Holtz, Sumner, St. Louis
Holtzman, Samuel, Joplin
Hook, Waller G., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Hoopes, John E., St. Louis
Hoover, Bernard L., St. Louis
Hoover, H. Lee, Jr., Springfield
Hopkins, Florian G., Gideon
Hopkins, James P., Kansas City
Hopkins, Thomas J., Sedalia
Hopkins, T. Spencer, Sedalia
Hori, Jose M., Columbia
Hornback, Edward R., Joplin
Horner, Glennon A., Columbia

Horner, John L., St. Louis
Hornstra, Robijn K., Kansas City
Horton, James D., Springfield
Horwitz, Irwin B., St. Louis
Hosto, Leland E., St. Louis
Houck, Russell M., Kecoughtan, Va.
(Member Clay County Medical Society)
Houston, Vincent T., St. Louis
Howden, Thomas L., St. Joseph
Howe, Albert L., St. Louis
Howe, Louis F., St. Louis
Howell, Billy D., Brookfield
Hoxworth, Gerald M., Cape Girardeau
Hubbard, Sally L., Higginsville
Hubbell, Ira G., Columbia
Huber, Erwin T., St. Louis
Huber, K. Herbert, Richmond
Huber, Lasley E., Moberly
Huck, Frank F., Fenton
Huck, Richard F., St. Louis
Huckstep, Robert A., Farmington
Hudgens, Richard W., St. Louis
Hueser, James N., Columbia
Huggins, Albert M., St. Louis
Hughes, Judson M., Fulton
Hughes, Robert G., St. Louis
Hughes, Shelby B., Clinton
Hulbert, Bernard, St. Louis
Hulstra, Johannes F. W., Springfield
Hummel, Anton J., St. Louis
Hummel, William C., St. Louis
Humphrey, James, Mound City
Humphreys, Edward T., Boonville
Hungate, Carroll P., Kansas City
Hunleth, Frank E., St. Louis
Hunt, John L., Campbell
Hunt, John W., Jr., Farmington
Hunt, Thomas R., Kansas City
Hunter, Martin P., Kansas City
Hunzicker, Warren J., Kansas City
Hurd, James R., St. Charles
Hurst, Wilfred W., Joplin
Hurwitt, Frank, Kansas City
Husted, George W., Parma
Hutchinson, James H., Jr., St. Louis
Hutchinson, William B., St. Louis
Hutto, A. Herman, St. Louis
Hyde, Lawrence L., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Hyman, Anna, St. Louis

I

Ibaviosa, Alfred C., Crystal City
Ide, Carl H., Columbia
Ide, Lucien W., St. Joseph
Imes, Elvin D., Maryville
Ingham, Walton C., Kansas City
Inkley, John J., St. Louis
Irick, Carl C., Naples, Fla.
(Member St. Louis County Medical Society)
Irvin, William M., St. Louis
Irvine, John W., Kansas City
Irwig, Fred, Kansas City
Isbell, Charles H., Carthage
Isc, Frank H., Kansas City
Isom, Waldo B., Knox City
Ittner, George W., Jr., St. Louis
Ivy, Henry B., Springfield
Izmirlian, Grant, St. Louis

J

Jackson, Edward K., Clarksville
Jackson, Haywood R., Kansas City
Jackson, Robert L., Columbia
Jackson, Vernon B., Fulton
Jackson, William R., Maryville
Jacob, Karl A., Jr., St. Louis
Jacob, Walter P., Kansas City
Jacobs, Charles C., St. Louis
Jacobs, Frederick A., St. Louis
Jacobs, Morton, Kansas City
Jacobs, Walter H., Kansas City
Jaeger, Joseph N., Jackson
James, Otis E., Jr., Kansas City
Jameson, James E., Springfield
Jamison, Rex L., St. Louis
Janney, James G., Jr., St. Louis
Jansen, Robert, Kansas City
Jaudon, Joseph C., Clayton
Jean, J. Ted, St. Louis
Jeans, Virgil, Joplin
Jenab, Morteza, Kansas City
Jennett, James H., Kansas City
Jensen, Joshua E., Florissant
Jick, Sidney, St. Louis
Jimenez, Jose, St. Joseph
Johnson, C. Laurence, Kansas City
Johnson, Charles A., St. Louis
Johnson, Charles S., Warrensburg
Johnson, Dallas A., Kansas City
Johnson, Earl W., Cape Girardeau
Johnson, Edgar W., Jr., Kansas City
Johnson, George A., Springfield
Johnson, George L., Ft. Benning, Ga.
(Member Greene County Medical Society)
Johnson, James S., Kansas City
Johnson, Joseph E., Kansas City
Johnson, Maurice N., St. Louis
Johnson, Mitchell D., Ferguson
Johnson, Morris B., Hickman Mills
Johnson, Richard E., Columbia
Johnson, Roy, Ferguson
Johnson, Thomas M., Kansas City
Johnson, Warford B., Springfield
Johnson, William A., Kansas City
Johnson, William F., Springfield
Johnston, Glen P., St. Louis
Johnston, Joseph L., Springfield
Johnstone, John, Jr., Kirkwood
Johnstone, Paul N., Kansas City
Jolly, Benjamin N., Mexico
Jolly, William H., Mexico
Jonas, Harry S., Jr., Independence
Jones, Andrew B., Soddy, Tenn.
(Member St. Louis Medical Society)
Jones, Augustin, St. Louis
Jones, Dorothy J., St. Louis
Jones, Edna M., Clinton
Jones, Edward S., Harrisonville
Jones, Gale O., Kansas City
Jones, Grey, St. Louis
Jones, Harold L., Springfield
Jones, James B., St. Louis
Jones, James H., St. Louis
Jones, John B., Columbia
Jones, Keith D., Warrensburg
Jones, Marion E., Kansas City
Jones, Otey S., St. Louis
Jones, Richard A., St. Louis
Jones, Samuel T., III, Kansas City
Jones, Theodore R., Kansas City
Jones, Victor, Brentwood
Jones, Vincent L., St. Louis
Jordan, Edward J., St. Louis
Jordan, Walter R., Barnhart
Jorstad, Louis H., St. Louis
Joseph, Harold J., St. Louis
Joslyn, Harold L., St. Louis
Jost, Charles A., St. Louis
Jotte, Richard F., St. Ann
Joyer, Robert M., St. Louis
Judd, Donald, St. Louis
Judge, Walter T., Crystal City
Judy, Joseph D., St. Louis
Juergens, William G., St. Louis
Jung, J. Marshall, Columbia
(Member Cape Girardeau County Medical Society)
Justus, John B., Kansas City

K

Kahler, Monte R., Bolivar
Kahn, Lawrence, St. Louis
Kahn, Marvin, Prairie Village, Kan.
(Member Jackson County Medical Society)
Kairuz, Bartholome C., St. Louis
Kaiser, George C., St. Louis
Kallenbach, Glen P., Mexico
Kamada, Tsutomu, O'Fallon
Kamakas, Nicholas, Florissant
Kaminsky, Watson W., St. Louis
Kamuran, Ozgoncu, St. Louis
Kanarek, Joseph, Kansas City
Kandt, Ray E., Jr., Kansas City
Kane, Clyde E., St. Louis
Kantor, Julius M., Kansas City
Kantor, Samuel, Kansas City
Kaplan, Alex H., St. Louis
Kappesser, Netajean B., St. Louis
Kappesser, Roland C., St. Louis
Karandjeff, Apostle D., St. Louis
Kardesch, Milton, St. Louis
Karl, Michael M., St. Louis
Karraker, Alvan G., Farmington
Karsh, Robert S., St. Louis
Kartus, Irving, Kansas City
Kaskie, Clifford R., Clayton
Kasten, Melvin C., Cape Girardeau
Katf, Nicola, Kansas City
Katz, Milton, Kansas City
Kauffman, Ruth, Versailles
Kaufmann, Herbert H., Kansas City
Kaul, Philip G., Kansas City
Kay, Billy F., Kansas City
Kayes, Jack, St. Louis
Kays, Kenneth M., Rolla
Kealhofer, George C., Kansas City
Keeble, Charles B., St. Louis
Keeler, James E., Kansas City
Keenoy, John J., St. Louis
Keffler, Karl L., St. Louis
Keim, John H., Cape Girardeau
Keitges, Pierre W., Kansas City
Keller, Louis, St. Louis
Keller, Maurice J., St. Louis
Keller, Robert M., Wentzville
Kellett, John G., Webster Groves
Kelley, Gilbert B., Savannah
Kelley, Robert W., St. Louis
Kelling, Douglas G., Kansas City
Kelling, Jordan, Waverly
Kelly, Eugene H., Ironton
Kelly, Marshall W., Jefferson City
Kelly, R. Emmet, St. Louis
Kelly, William A., St. Louis
Kelsey, Kenneth L., Aurora
Keltner, R. M., St. Louis
Kendall, Charles A., Kansas City
Kendig, John H., St. Louis
Kendis, Joseph B., St. Louis
Kennard, George K., Kansas City
Kenney, Roy E., Neosho
Kent, Bela K., Kansas City
Kenzler, Jack I., St. Louis
Keown, Kenneth K., Columbia
Kepler, Earl C., Fulton
Kernodle, Jefferson D., Kansas City
Kerr, David N., St. Louis
Kerr, Frank T., Monett
Kerr, S. Earl, Columbia
Kessler, Sheldon, Florissant
Ketcham, William M., Kansas City
Ketterman, Grace H., Kansas City
Ketterman, Herbert L., Kansas City
Kettner, Edward G., Kansas City
Key, James S., Springfield
Keyes, Edward L., Clayton
Khazin, Azmi H., St. Louis
Kieber, Robert W., St. Joseph
Kieffer, Roland S., St. Louis
Kieffer, Victor B., Jr., St. Louis
Kienberger, Paul A., Independence
Kielar, Richard A., Fort Leonard Wood
Kiene, Richard H., Kansas City
Kienzle, Edward C., St. Louis
Kilker, Clarence H., Normandy
Kilker, Donald E., Normandy
Kilo, Charles, St. Louis
Kimball, Ireland W., Kansas City
Kimball, Merritt H., Kansas City
Kimberlin, Herbert C., Trenton
Kimble, Harvey S., Kansas City
Kimelman, Nathan, St. Louis
Kimura, Richard Y., St. Louis
Kinder, James A., Cape Girardeau
Kinder, Jerry L., Cape Girardeau
Kindred, Lynn H., Kansas City
King, Elbert R., Boise, Idaho
(Member West Central Missouri Medical Society
King, Eustace E., III, St. Louis
King, Francis C., Kirkwood
King, J. Tenbrook, Kansas City
King, James P., St. Louis
King, John V., St. Louis
King, John V., Jr., St. Louis
King, Lucy J., St. Louis
King, M. Kenton, St. Louis
King, Phillip E., Liberty
King, Richard H., Clinton
King, Walter R., Kansas City
Kingsbury, Helen, Shawnee Mission, Kan.
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Kingsland, Robert C., Clayton
Kinsella, Edward D., St. Louis
Kinsella, Peter W., St. Louis
Kinsella, Ralph A., Jr., St. Louis
Kipnis, David M., St. Louis
Kirk, Robert V., Kansas City
Kirkland, Jerry A., Kansas City
Kirschman, Robert E., Joplin
Kirstein, Melvin B., St. Louis
Kirtz, Louis P., St. Louis
Kiser, David M., Kansas City
Kissane, John M., St. Louis
Kister, George E., St. Charles
Kistner, William F., St. Louis
Kitchen, William M., Kansas City
Klaff, Daniel D., St. Louis
Klebba, Larry B., Jefferson City
Klein, Andrew G., St. Louis
Klein, Arnold G., St. Louis
Klein, Bert H., St. Louis
Klein, Edward H., Kansas City
Klein, Saul J., St. Louis
Kleinschmidt, Clinton, St. Louis
Klenk, Charles L., St. Louis
Kline, Carlyn M., St. Joseph
Kline, Edmund W., St. Joseph
Klinge, Frederick W., St. Louis
Klingner, George M., Springfield
Klingner, George M., Jr., Springfield

Klinkerfuss, George H., St. Louis
Klippel, Allen P., St. Louis
Klippel, Bernhardt W., St. Louis
Kloecker, Richard J., St. Louis
Kloecker, Robert P., St. Louis
Knabb, Arthur D., Springfield
Knabb, Henry F., Jr., Springfield
Knabb, Kenneth E., Springfield
Kneal, E. Ellsworth, St. Louis
Kneibert, Fred L., Poplar Bluff
Knepper, Paul A., St. Joseph
Knese, Luke A., Cypress, Calif.
(Member St. Louis Medical Society)
Knight, Franklin P., St. Louis
Knight, John S., Kansas City
Knight, Lyle B., Lee's Summit
Knight, William A., Jr., St. Louis
Knipschild, Bedford F., Marshall
Knoch, H. Kermit, Kansas City
Knock, Henry L., Kirkwood
Knowles, R. R., St. Louis
Knowlton, Norman P., Jr., St. Louis
Koch, Robert E., Clayton
Koehler, Charles A., Shawnee Mission, Kan.
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Koehler, George A., St. Louis
Koehler, John W., Joplin
Koehler, P. Ruben, St. Louis
Koenig, Marvin I., St. Louis
Koerner, Kenneth A., St. Louis
Koessel, Arthur W., St. Louis
Kohler, Eugene J., St. Louis
Kohler, Louis H., St. Louis
Kolker, Allan E., St. Louis
Kolze, Vernon W., Springfield
Komanetsky, William M., St. Louis
Konikov, Nadya, St. Louis
Konzelmann, John A., St. Louis
Koon, Ben H., Bolivar
Koontz, Paul G., Kansas City
Kopp, Jules H., St. Louis
Kopp, Leonard J., St. Louis
Koppenbrink, Walter E., Jr., Higginsville
Korenblatt, E. Phillip, St. Louis
Korn, Robert L., Clayton
Korth, William M., Sarasota, Fla.
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Kouchoukos, Nicholas T., Birmingham, Ala.
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Kowert, Edward H., St. Louis
Kozal, Francis L., Crystal City
Kozlowski, Albert E., St. Louis
Kraft, Jacob, Kansas City
Kramer, Fred, St. Louis
Kramolowsky, Helmuth H., St. Louis
Kraner, Justin F., St. Louis
Kranson, Seymour J., Independence
Kratz, Paul E., Cape Girardeau
Krause, G. Lynn, Jr., St. Louis
Krieger, John L., St. Louis
Krebs, Joseph M., Clayton
Krojanker, Rolf, St. Louis
Kromer, Charles, St. Louis
Kronemer, Norton S., St. Louis
Krueger, Haven C., Kansas City
Kubin, Milford T., Columbia
Kuczer, Arnoldo, Villa Park, Ill.
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Kuebrich, Thomas C., Ferguson
Kuehner, Marvin E., APO, N. Y.
(Member St. Louis Medical Society)
Kuenzi, Donald E., Kansas City
Kuhlman, Robert E., St. Louis
Kuhn, John R., Jr., Joplin
Kuhn, Nobuko O., St. Louis
Kuhn, William F., II, Kansas City
Kulowski, Jacob, St. Joseph
Kurth, Robert K., St. Louis
Kurz, Rudolph F., Alton, Ill.
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Kutryb, Walter J., St. Louis
Kuttner, Marianne, St. Louis
Kyger, John E., Independence
Kyner, Thomas A., Kansas City

L

Lachance, Leopold, Centralia
Lacy, Paul E., St. Louis
Ladd, Charles B., St. Louis
Ladenson, Roland P., Columbia
LaDriere, Raymond J., Creve Coeur
Ladyman, George H., Poplar Bluff
LaHue, William C., Tampa, Fla.
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Laird, John M., Jr., Florissant
Lally, James J., Kansas City
Lam, Robert L., St. Louis
Lamar, Robert F., Kansas City
Lamb, Wanda, St. Louis
Lambert, Marian, Kansas City
Lambie, Rodger W., Kansas City
Lampton, Lawrence M., Kansas City
Lamy, John E., Sedalia
Landau, William M., St. Louis
Landhuis, L. R., Columbia
Landis, George K., Kansas City
Landor, John H., Columbia
Landry, J. Hubert, St. Louis
Lane, Clinton W., St. Louis
Lane, Daniel K., St. Louis
Lane, Jerald P., Carrboro, N. C.
(Member West Central Missouri Medical Society)
Laney, Roland L., Carlsbad, Calif.
(Member Jasper County Medical Society)
Lang, John J., St. Louis
Lange, Adolph C., St. Louis
Langeluttig, Harry V., Jr., Nevada
Langhus, Melvin O., N. Kansas City
Langston, Walter R., Springfield
Lanier, Earl W., St. Louis
Lankford, Harold D., Mexico
Lanning, Richard C., Ste. Genevieve
Lanning, Richard J., Kansas City
Lanning, Robert J., Hannibal
Lansche, Elmer A., St. Louis
Lansche, W. Edward, St. Louis
Lapi, Angelo, Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Lapp, Harry C., Kansas City
Larimore, Joseph W., St. Louis
Larkin, Rosemary R., St. Louis
Larocca, Felix E. F., St. Louis
Larsen, Kenneth V., St. Louis
Larson, Paul U., St. Louis
Lassar, Gilbert N., St. Louis
Latham, Kenyon S., California
Latham, Raymond W., Kansas City
Latimer, Walter N. A., Hannibal
Lattinville, Henry E., St. Louis
Lau, Luis, St. Louis
Lauber, Joseph J., St. Louis
Lauer, Daniel J., Kansas City
Lauer, John D., St. Louis
Laux, France A., St. Louis
Lawrence, George H., St. Louis
Lawrence, John R., Marshall
Lawton, John T., St. Louis
Lawton, Lawrence M., St. Louis
Layle, John K., Jr., Kansas City
Layton, Ira C., Kansas City
Leach, Jon R., Maryville
Leagus, Charles J., Jr., Springfield
Leahy, John G., St. Louis
LeBlanc, Leo J., St. Louis
L'Ecuyer, Jerome L., St. Louis
Lederer, Charles M., Warrensburg
Lederman, Joseph, St. Louis
Lee, Carleton H., St. Joseph
Lee, Henry A., Kansas City
Lee, James B., St. Louis
Lee, Yeu-Tsu, Columbia
Leech, Charles A., Columbia
Leech, Maurice P., Fayette
Leeper, Sidlee W., Columbia
Legan, John K., Kennett
Lehman, Philip C., St. Joseph
Lehner, Richard L., Kansas City
Leidinger, Karl J., Republic
Leifer, William W., Kansas City
Leightner, William, St. Louis
Leitch, Cecil G., Blue Springs
Leitz, Frank B., Kansas City
Lembeck, Joseph A., St. Louis
Lemmon, George B., Springfield
Lenobel, Milton I., Clayton
Lentz, Clark H., Kansas City
Lentz, Harold C., Neosho
Leo, William A., Kansas City
Leong, James T., Independence
Leonhardt, Erwin M., St. Louis
Leroux, Gene H., Doniphan
Lerwick, Everett R., St. Louis
Leslie, Charles H., Kirkwood
Leslie, J. Paul, Jefferson City
Leslie, James T., Jr., Jefferson City
Levey, Harry B., Kansas City
Levey, Simon A., St. Louis
Levin, Marvin E., St. Louis
Levitt, Joseph, St. Louis
Levy, Irwin, St. Louis
Levy, Jerome F., St. Louis
Lewellen, Charles H., Louisiana
Lewin, Wilbur H., St. Louis
Lewis, Charles R., St. Louis
Lewis, James E., Jr., St. Louis
Lewis, Noel R., Springfield
Lewis, Ray B., Columbia
Lewis, Revis C., Kansas City
Leydig, Stanley M., St. Louis
Liang, Howard S., St. Louis
Lichtor, Alexander, Kansas City
Lichtor, Joseph M., Kansas City
Lichty, Charles A., Shelbina
Lieb, Francis X., St. Louis
Lieb, Otto, St. Louis
Lieberman, B. Albert, Jr., Kansas City
Lieberman, David M., St. Louis
Liese, Grover B., St. Louis
Lilly, Douglas R., St. Louis
Lilly, Terry E., Jr., Kansas City
Lindberg, Donald, Columbia
Lindeman, Carl H., St. Louis
Lindgren, Carleton J., Independence
Lindquist, Carl N., Kansas City
Link, Alexander J., St. Louis
Link, Vance E., Independence
Linsenmeyer, Charles M., St. Charles
Linville, Howard E., Kansas City
Lipschitz, Ervin, St. Louis
Lipsitz, Ellis S., St. Louis
Lischer, Carl E., St. Louis
Lissner, Arthur B., St. Louis
Little, Monroe H., St. Louis
Littlejohn, Robert T., Kansas City
Littmann, Lewis E., St. Louis
Litton, Lyle D., Springfield
Litton, Lynn O., Columbia
Litwiller, R. W., Columbia
Litzow, Louis T., St. Louis
Lloyd, Ivan E., Kansas City
Lockhart, Charles E., Springfield
Lodwick, Gwilym S., Columbia
Loeb, Richard H., Springfield
Loeb, Virgil, Jr., St. Louis
Loeffel, Ellen S., St. Louis
Logue, John T., Columbia
Lohr, Curtis H., St. Louis
Lohr, Robert W., St. Louis
Lohrentz, Lois H., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Loitman, Bernard, St. Louis
Londe, Alan M., St. Louis
Londe, Sol, St. Louis
London, Stanley L., St. Louis
Lonergan, Warren M., St. Louis
Long, Curtis W., Butler
Long, David S., Harrisonville
Long, Frank B., St. Louis
Long, R. Stacy, Kansas City
Long, Robert W., St. Louis
Longenecker, Joe L., Joplin
Lonsway, Maurice J., St. Louis
Lonsway, Maurice J., Jr., St. Louis
LoPiccolo, Vincent J., St. Louis
LoPiccolo, Vincent J., Jr., St. Louis
Lord, Richard E., St. Louis
Lorenc, Ernest, Springfield
Loriga, Martin S., St. Louis
Lottes, James O., St. Louis
Loughead, John R., Poplar Bluff
Loutzenhiser, James K., Kansas City
Lovinggood, Thomas A., Cape Cirardeau
Lowe, Alvin L., Sedalia
Lowe, Horace A., Jr., Springfield
Lowell, Paul, Kansas City
Lowenstein, Paul S., St. Louis
Lowrey, Ford J., Kansas City
Lowry, Roberta L., Columbia
Lowther, Gerald S., Manchester
Loyd, Earl L., Jefferson City
Lubowitz, Herbert, St. Louis
Lucas, Fred V., Columbia
Lucas, G. Elden, St. Louis
Lucido, Joseph L., St. Louis
Lucke, Eugene M., Hannibal
Luckenbill, Paul T., Plattsburg
Luedde, Fullerton W., St. Louis
Luedde, Philip S., St. Louis
Luehrs, Robert O., St. Louis
Lugo, Samuel, Florissant
Luh, Andrew, St. Louis
Lukens, John N., Jr., Columbia
Lukson, Robert J., St. Louis
Lund, Herluf G., St. Louis
Lund, Robert H., Clayton
Lurie, Harold H., Springfield
Lusk, Charles A., Jr., Butler
Luten, Drew W., St. Louis
Luter, Carter W., Butler
Luther, George A., Ft. Leonard Wood
Lutkewitte, Joseph F., Ste. Genevieve
Lutz, Martin H., St. Louis
Lyddon, Harold R., Jr., Kansas City
Lyle, Robert R., Versailles

Lyman, Edward H., St. Louis
Lynxwiler, Chester P., St. Louis
Lyss, Carl, St. Louis
Lytle, William R., Rolla
Lyttle, Garnet C., St. Louis
Lytton, George J., Kansas City

Mc

McAdam, Charles R., St. Louis
McAfee, C. Alan, St. Louis
McAfee, R. Gordon, Kansas City
McAlhany, Howard J., Springfield
McAlister, William H., St. Louis
McArtor, Thomas R., Browning
McBurney, Charles A., Slater
McCaffree, Mary K., St. Joseph
McCall, Edwin L., St. Louis
McCalla, John P., Kansas City
McCann, John F., St. Louis
McCann, Louis P., Nevada
McCanse, Andrew, Kansas City
McCarroll, Henry R., St. Louis
McCarthy, John M., St. Louis
McCarthy, Thomas D., Ferguson
McCaughan, John M., New London, Conn.
(Member St. Louis Medical Society)
McClanahan, Robert C., Kansas City
McCloskey, R. Bruce, Webster Groves
McClure, David N., Clayton
McClure, James N., Jr., St. Louis
McCool, James F., Jr., St. Louis
McCool, Stanley G., St. Louis
McConchie, James E., Independence
McCorkle, E. Lee, Marshall
McCormick, James E., Kansas City
McCormick, Vincent D., Dallas, Tex.
(Member St. Louis Medical Society)
McCown, Allan H., St. Louis
McCoy, Donald L., Marshall
McCoy, Frederick J., Kansas City
McCoy, Warren R., Caruthersville
McCracken, Samuel R., Excelsior Springs
McCraw, Doyle C., Bolivar
McCray, Glen M., Kansas City
McCubbin, Clarence R., Leawood, Kan.
(Member Jackson County Medical Society)
McCullough, Campbell C., Kansas City
McDaniel, John R., St. Joseph
McDermott, Alfred E., Perryville
McDonald, Eugene F., Jackson
McDonald, Victor G., Jr., Kansas City
McDonald, Wilbur P., St. Joseph
McDonnell, John F., Kansas City
McDonough, John, St. Louis
McElroy, Glenn L., Columbia
McFadden, Gene A., Waverly
McFadden, James F., Jr., St. Louis
McFadden, James F., Sr., St. Louis
McFarland, H. Richard, Kansas City
McFarland, Morris D., Kansas City
McGannon, Paul T., Kansas City
McGinnis, Byron J., St. Louis
McGinnis, William F., St. Louis
McGinty, Charles P., Cape Girardeau
McGuire, Thomas H., Kansas City
McHaney, John W., Jefferson City
McIntosh, Donald E., Kansas City
McIntyre, John D., Kansas City
McKaskle, Clarence W., Caruthersville
McKee, Oliver A., Kirkwood
McKee, Wallace P., Kansas City
McKinney, Joseph K., St. Louis
McKinsey, John J., Springfield
McKinstry, Karl V., DeSoto
McKnelly, William V., Jefferson City
McKnelly, William V., Jr., Kansas City
McLain, Bobby M., Poplar Bluff
McLane, Jerry F., Poplar Bluff
McLean, Harry A., St. Louis
McLean, Royal C., St. Louis
McLeod, John, Kansas City
McMahon, Bernard J., Clayton
McMillan, Thomas E., Kansas City
McMurray, Herbert C., Manchester
McNalley, Frank P., Clayton
McNalley, Michael, St. Louis
McNamara, John J., Richmond Heights
McNeel, Lee A., Jr., Greenfield
McNew, William T., Carthage
McNutt, Theodore L., Kansas City
McPhee, William R., Kansas City
McPheeters, James W., Poplar Bluff
McPike, Lloyd H., Joplin
McSwiney, John G., St. Louis
McVay, James R., Kansas City
McVay, James R., Jr., Kansas City
McWherter, Lottie B., Kansas City, Kan.
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M

Maben, Sam Edward, Kansas City
Mabrey, John P., Plattsburg
Macauley, Bernard J., Poplar Bluff
MacBryde, Cyril M., St. Louis
Maccubbin, Don A., Kansas City
MacDonald, Robert R., Jr., Chesterfield
Macdonald, William C., St. Louis
Macdonnell, Thomas M., Marshfield
Machek, Otakar, St. Louis
MacInnis, Florence E., Kansas City
Mack, Mary L., address unknown
Mackenzie, James W., Columbia
MacLaughlin, James C., Joplin
MacNaughton, Ralph E., Kansas City
MacNaughton, Robert A., Leawood, Kan.
(Member Jackson County Medical Society)
Macnish, James M., St. Louis
Macon, William L., Jr., St. Louis
Maddox, Albert R., Sedalia
Maddox, John D., Joplin
Maddux, William P., Springfield
Madrid, Dominador, St. Louis
Magaletta, George E., Cape Girardeau
Magee, Charles D., St. Louis
Magee, Robert L., El Dorado Springs
Magee, William E., St. Louis
Magidson, Joseph, St. Louis
Magill, Joseph S., Milan
Maginn, R. Reilly, St. Louis
Maginn, Richard L., St. Joseph
Magness, Guy N., University City
Magness, William C., Branson
Magrinat, Gaston, St. Louis
Mahe, George A., St. Louis
Maher, Robert W., Springfield
Maher, Thomas F., St. Louis
Maizus, Saul H., St. Louis
Malles, A. Conrad, St. Louis
Manansala, Antonio Q., St. Louis
Mandler, George, Chillicothe
Manganaro, Frank J., St. Louis
Mangels, Kenneth A., Independence
Mangelsdorf, Thomas K., St. Louis
Manion, Peter J., St. Louis
Manley, Charles B., Jr., St. Louis
Mann, James K., Hannibal
Mannis, Ben G., St. Louis
Mansur, Edward E., Stuart, Fla.
(Member Cole County Medical Society)
Mantz, Frank A., Kansas City
Maple, Francis M., Springfield
Maravilla, Levy M., St. Louis
Marco, Philip J., Malibu, Calif.
(Member Boone County Medical Society)
Marcus, Morris D., St. Louis
Mardini, Edward E., Bonne Terre
Margolis, Richard M., St. Louis
Marienfeld, Carl J., Columbia
Markel, Arthur D., Poplar Bluff
Marks, Mark M., Kansas City
Marmor, William A., Florissant
Mars, Hartley F., Forsyth
Marsh, Alice, Pleasant Hill
Marsh, Wallace S., New Orleans, La.
(Member Clay County Medical Society)
Marshall, Cameron F., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Marshall, Hal E., Kansas City
Marshall, William G., Glasgow
Marston, F. James, Jr., St. Joseph
Martel, Dominique, St. Louis
Martin, Andrew D., Sikeston
Martin, Clyde V., Kansas City
Martin, Daniel C., Kansas City
Martin, Daniel J., St. Louis
Martin, Forrest L., Nevada
Martin, Frederick W., Jr., St. Louis
Martin, J. Barlow, St. Louis
Martin, James M., Kirkwood
Martin, John N., St. Joseph
Martin, Maynard W., Houston, Tex.
(Member St. Louis Medical Society)
Martin, Richard H., Columbia
Martin, Wilfred E., Odessa
Martin, W. Joe, Louisiana
Martt, Jack M., Columbia
Martz, John C., St. Louis
Mason, Wayne E., Kansas City
Massie, Edward, St. Louis
Masters, William H., St. Louis
Masterson, Byron J., Kansas City
Masucci, Joseph M., Kansas City
Mathewson, Hugh S., Kansas City
Matteson, Frank B., Grant City
Matthews, John G., St. Louis
Matthews, John I., Jefferson City
Mattis, Robert D., Clayton
Maughs, Sydney B., St. Louis
Max, Paul F., St. Louis
Maxey, Hugh W., Jefferson City
Maxson, T. Reed, Warrensburg
Maxwell, John A., Kansas City, Kan.
(Member Jackson County Medical Society)
Maxwell, Richard W., St. Louis
May, Albert L., Jr., Poplar Bluff
Mayer, John H., Jr., Kansas City
Mayer, Robert A., St. Louis
Mayer, William D., Columbia
Mayfield, James L., Crystal City
Mays, Frank G., Washington
Maze, Lawrence E., St. Louis
Mead, Samuel T., Slater
Meador, James R., Clayton
Meagher, Arthur J., St. Louis
Medler, Francis J., St. Louis
Medler, John F., Charleston, S. C.
(Member St. Louis County Medical Society)
Medlicott, William J., Kansas City
Meegan, Robert J., Kansas City
Mehan, Donald J., St. Louis
Meier, Francis X., Jefferson City
Meinberg, William H., St. Louis
Meiners, Paul N., St. Louis
Meiners, Theodore M., St. Louis
Meinershagen, Charles W., Jefferson City
Melburn, Colleen M., Houston, Tex.
(Member St. Louis Medical Society)
Melgaard, S. Ross, Kansas City
Melia, Bernard J., Jr., Fort Belvoir, Va.
(Member Cole County Medical Society)
Melick, William F., St. Louis
Menchetti, Don E., Springfield
Mendelsohn, Robert S., St. Louis
Mendelson, David F., St. Louis
Mendonsa, Lawrence E., St. Louis
Menendez, Manuel F., St. Louis
Menne, Marvin G., Ironton
Merenda, Sam J., St. Louis
Merideth, Mary Jane, Cassville
Meriwether, Don R., Mission, Kan.
(Member Jackson County Medical Society)
Merklin, Anton L., St. Louis
Merrims, Theodore, St. Louis
Merritt, Burch A., St. Louis
Merz, Jean J., St. Louis
Mestres, Hugh M., St. Louis
Metz, Charles O., St. Louis
Metzgar, Marshall T., Columbia
Metzl, Kurt, Kansas City
Meyer, Claude B., Springfield
Meyer, Curtis A., St. Louis
Meyer, Herman M., St. Louis
Meyer, James E., Manchester
Meyer, Jay, Denver, Colo.
(Member St. Louis County Medical Society)
Meyer, John S., Columbia
Meyer, Melvin E., St. Louis
Meyer, Paul W., Kansas City
Meyers, Harold L., Kansas City
Meyers, John B., Clayton
Meyers, Robert W., St. Louis
Meyers, Rosellen C., St. Louis
Mezera, Raymond A., St. Louis
Michael, Harvey R., Springfield
Michael, Kenneth D., St. Louis
Michael, Vernon E., St. Louis
Michaelree, John F., St. Louis
Middleton, John W., Louisiana
Mier, Thomas M., St. Louis
Miksicek, John E., St. Louis
Milder, Benjamin, St. Louis
Miles, George O., Kansas City
Miles, Paul W., St. Louis
Mill, William B., Jr., St. Louis
Miller, Charles, Jr., Kirkwood
Miller, Charles W., Coral Gables, Fla.
(Member St. Louis Medical Society)
Miller, Clinton L., Lee's Summit
Miller, Clyde S., Waynesville
Miller, D. Herbert, Muskogee, Okla.
(Member Chariton-Macon-Monroe-Randolph County Medical Society)
Miller, David V., Poplar Bluff
Miller, Geoffrey W., St. Louis
Miller, Gerald L., Kansas City
Miller, Harold W., Willow Springs
Miller, James R., St. Louis
Miller, Jule P., Jr., St. Louis
Miller, Leroy J., Columbia
Miller, Max I., Prairie Village, Kan.
(Member Jackson County Medical Society)
Miller, Norman C., St. Louis
Miller, Oliver J., Cape Girardeau
Miller, Robert N., St. Louis
Miller, Wilson H., Kansas City
Millikin, Lester A., St. Louis
Milne, J. L., Springfield
Milster, Clyde R., St. Louis

Miltenberger, Paul C., Kennett
Minnigerode, Turner L., Columbia
Minnihan, Robert W., Affton
Minton, Robert S., Fortescue
Mishkin, Marvin R., St. Louis
Miskovsky, Emil F., St. Louis
Missey, Wilburn C., Jr., St. Louis
Mitchell, Andrew D., Kansas City
Mitchell, Eugene, St. Louis
Mitchell, Franklin L., Columbia
Mitchell, Lynn D., Columbia
Mitchell, Robert H., Kansas City
Mitchell, Roy E., Salem
Mitchell, Thomas J., St. Clair
Mitra, Nirmal K., Kansas City
Mixson, William C., Kansas City
Moellenhoff, Robert W., Washington
Moen, Berwyn H., St. Joseph
Moffett, James B., Poplar Bluff
Molden, Charles A., St. Louis
Molony, Basil A., St. Charles
Monafo, William W., Jr., St. Louis
Monat, Seymour, St. Louis
Montani, Charles, St. Louis
Montello, Samuel A., Kansas City
Montes, Arturo C., Baden
Montes-de-Oca, Julio, St. Louis
Montgomery, Austin F., Brentwood
Montgomery, James G., Kansas City
Moody, Jackson C., Harrisonville
Moon, Thomas R., Jr., St. Louis
Mooney, Justin L., Kansas City
Mooney, Marcel L., Kansas City
Moore, Allen H., Jr., Branson
Moore, Alva, St. Louis
Moore, Carl V., St. Louis
Moore, Harry G., St. Louis
Moore, Harry G., Jr., St. Louis
Moore, John L., St. Louis
Moore, Robert A., Kansas City
Moore, Walter L., St. Louis
Moore, William E., Normandy
Moranville, Benedict A., Columbia
Moranz, John W., St. Louis
Moreano, Armando H., Kansas City
Morehead, William E., Malden
Morest, F. Stanley, Cape Girardeau
(Member Jackson County Medical Society)
Morgan, David B., Kansas City
Morgan, Harry C., St. Louis
Morgan, Philip E., Jefferson City
Morgan, Troy O., Jr., Albany
Morgan, W. Thomas, Jr., West Plains
Morley, Louise A., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Morrin, Kevin C., St. Louis
Morris, Alan H., St. Louis
Morris, Harvey E., St. Louis
Morris, Joseph H., Jr., Kansas City
Morris, Mary E., St. Louis
Morrison, Arlen, Clayton
Morrison, Donald H., Kansas City
Morrison, T. A., Aurora
Morse, John P., St. Joseph
(Member Jackson County Medical Society)
Morse, Marvin, St. Joseph
Mortensen, Frede, St. Louis
Morton, Paul C., Springfield
Mosby, Larry Dee, Columbia
Moseley, F. Thomas, Springfield
Moss, Paul, Kansas City
Moses, Robert A., St. Louis
Mothershead, John L., St. Joseph
Motzel, Albert J., St. Louis
Mount, Allan, Independence
Mountjoy, Grace S., St. Louis
Mowrer, Marie O., Jefferson City
Mowrey, William O., Jennings
Muckerman, Richard I. C., St. Louis
Mudd, J. Gerard, St. Louis
Muehlberger, James J., Kansas City
Muelheims, Gerhard H., St. Louis
Mueller, Clarence E., St. Louis
Mueller, Joseph A., St. Louis
Mueller, Martin J., Kansas City
Mueller, Morris A., St. Louis
Mueller, Robert, St. Louis
Mueller, Robert J., St. Louis
Mueller, Wilbur K., St. Louis
Muench, Albert H., St. Joseph
Muench, Laurence W., St. Louis
Muenster, Vincent P., St. Charles
Muether, Raymond O., St. Louis
Mullarky, Wilbur A., Chesterfield
Mullen, Jack, Bonne Terre
Mullen, Leo M., Kansas City
Mulligan, Leo V., St. Louis
Mullinax, Orr, St. Joseph
Mullins, Bernard L., N. Kansas City
Mullins, John E., St. Louis
Multhauf, Cyril J., Kansas City
Mundy, Homer F., St. Joseph
Mundy, William L., Kansas City
Muniz, Carlos E., Columbia
Munsch, Girard A., St. Louis
Murney, Joseph A., Washington
Murphy, Bernard L., Hannibal
Murphy, George E., St. Louis
Murphy, James J., Kansas City
Murphy, James P., St. Louis
Murphy, John C., St. Louis
Murphy, Paul, St. Louis
Murphy, Robert J., Kansas City
Murray, Wilber L., Kansas City
Muschany, Norman K., St. Louis
Musgrave, David E., Excelsior Springs
Muth, Robert G., Kansas City
Mutshnick, Clara P., St. Louis
Myers, Ivan T., St. Louis
Myers, James M., Rolla
Myers, John S., Kansas City
Myers, Robert M., Kansas City

N

Naime, Mansour J., Kansas City
Nakada, James R., St. Louis
Napper, Marvin L., Springfield
Naryka, Joseph J., St. Louis
Nash, Helen E., St. Louis
Nash, W. Hampton, St. Louis
Nathan, Lester J., St. Louis
Neal, M. Pinson, Columbia
Near, David M., Florissant
Needels, Orval T., Kansas City
Neilson, Arthur W., St. Louis
Nelson, Bentley A., Kansas City
Nelson, J. Roger, Kirkwood
Nelson, James S., St. Louis
Nemec, Stanley S., St. Louis
Nesbit, Wm. Michael S., Columbia
Ness, Carl K., St. Joseph
Nesselrode, John H., Independence
Nester, Charles A., St. Louis
Neu, Leo T., Jr., Springfield
Neubeiser, Ben L., St. Charles
Neun, William F., St. Louis
Newcomb, Arthur D., Fredericktown
Newman, Matthew, St. Louis
Newman, Percy, St. Louis
Newman, Robert L., Kansas City
Newmark, Leonard N., St. Louis
Newport, Gerald, St. Louis
Newton, Gordon, St. Louis
Newton, William T., St. Louis
Nickel, James F., St. Louis
Nickels, Mathew L., St. Louis
Nickson, Charles E., Jr., Independence
Nicolai, Charles H., St. Louis
Nicolay, Kenneth S., Kansas City
Niedermeyer, Edward L., Tarkio
Niedermeyer, George J., St. Louis
Niedorf, Saul, St. Louis
Niesen, Frank J., St. Louis
Nigh, Charles A., St. Louis
Nigro, E. Robert, Kansas City
Nigro, Joseph A., Kansas City
Nishi, Toshio, St. Louis
Nixon, Edward E., Gallatin
Noah, Joseph W., St. Louis
Noback, Richardson K., Kansas City
Nolan, Charles J., St. Louis
Noller, Henry W., Overland
Noltensmeyer, Milton N., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Nomura, Roy M. Y., St. Louis
Norland, Charles C., St. Louis
Norton, William H., St. Louis
Nouhan, Joseph G., Jr., St. Louis
Nouri, Hassan, St. Louis
Novak, Edward J., Kansas City
Nuetzel, John A., St. Louis
Nunez, Maria M., St. Louis
Nunn, Pat M., Kansas City
Nunnelly, Gordon M., Cape Girardeau
Nussbaum, Paul B., Cape Girardeau
Nussbaum, Robert A., St. Louis
Nye, Robert S., St. Louis

O

Oakley, Margaret M., St. Louis
Obando, Francisco J., St. Louis
O'Bannon, Lon W., Jr., Florissant
Obermeyer, Charles G., St. Louis
O'Brien, Edward C., St. Louis
O'Brien, Harry F., Mexico
O'Brien, James A., Muskogee, Okla.
(Member Jasper County Medical Society)
O'Brien, Liam, St. Joseph
O'Brien, Robert M., St. Louis
O'Connor, Robert J., Florissant
O'Connor, William B., St. Joseph
O'Donnell, Joseph V., St. Louis
O'Dowd, James A., St. Louis
Oehler, William F., Cape Girardeau
Oetter, Donald L., St. Louis
O'Farrell, Thomas P., Kansas City
Ogilvie, John H., Gravois Mills
Oglesby, Richard B., St. Louis
Ogura, Joseph H., Ladue
O'Hearne, John J., Kansas City
Ohmoto, Masao, St. Louis
O'Keefe, Joseph D., St. Louis
O'Kell, Richard T., Kansas City
Okun, Edward, St. Louis
O'Leary, James L., St. Louis
Olive, George C., Neosho
Oliver, George A., Farmington
Olmsted, William H., St. Louis
Olson, Elbert R., Springfield
Olson, Robert E., St. Louis
O'Malley, James F., Kansas City
O'Neal, Lawrence W., St. Louis
O'Neal, Patricia, St. Louis
O'Neil, James H., Kansas City
O'Neill, John B., St. Louis
Onken, Henry D., St. Louis
Oppenheimer, Henry E., Clayton
O'Reilly, D. Elliott, St. Louis
Orenstein, Joseph M., St. Louis
Orgel, M. Norman, St. Louis
Orsay, Paul K., St. Louis
Ortiguero, Leopoldo M., St. Louis
Ortmeyer, Leroy F., St. Louis
Osborn, Donald O., St. Louis
Osborn, Retus W., III, Farmington
Osborne, Jere O., Lee's Summit
Osbourn, Richard A., Fulton
Ossman, Julian A., Jefferson City
Ost, Mark D., Kansas City
O'Sullivan, Daniel F., St. Louis
O'Sullivan, George A., St. Louis
Ott, Harold J., II, Denver, Colo.
(Member St. Louis Medical Society)
Ott, Harold J., Maplewood
Ottensmeyer, Charles D., St. Louis
Otto, Thomas G., Cape Girardeau
Overend, Donald S., Springfield
Overesch, Harry B., Kansas City
Overholser, Milton D., Columbia
Owen, Robert F., St. Louis
Owens, Graham J., Kansas City
Owens, James L., Kansas City
Owens, Richard L., Kansas City
Owens, Robert H., Kansas City
Owings, Raymond H., Sedalia
Ozar, Milton B., Kansas City
Ozenberger, Larry A., Plattsburg
Ozmat, Orban, St. Louis

P

Packman, Robert C., St. Louis
Paddock, Charles S., Joplin
Padfield, Earl G., Jr., Kansas City
Page, Jesse W., Sikeston
Paine, Robert, St. Louis
Painter, Andrew E., Portageville
Painter, Lattie B., Jr., Portageville
Pakula, Sidney, Kansas City
Pakula, Stephen B., Saratoga, Calif.
(Member Jackson County Medical Society)
Palazzo, Frank A., St. Louis
Palcheff, Chris L., Springfield
Palenske, Robert L., Hornersville
Palermo, Vincent G., Chesterfield
Paletta, Francis X., St. Louis
Pallett, Harold A., Kansas City
Papp, Sandor D., Joplin
Pappalardo, Carlos, St. Louis
Parato, John M., St. Louis
Parelman, Allen G., Kansas City
Paris, William H., Normandy
Park, George M., Chesterfield
Park, William I., Jr., Springfield
Parker, Arthur C., Jr., Poplar Bluff
Parker, Brent M., St. Louis
Parker, H. Graham, Platte City
Parker, Hubert M., Kansas City
Parker, Robert H., Kansas City
Parker, Thomas W., University City
Parker, William, St. Louis
Parks, Stephen, Sikeston
Parlato, George S., Springfield
Parrish, Henry M., Columbia
Parsons, Bernie, Albany
Parsons, D. LeRoy, Cape Girardeau
Parsons, Eugene O., Stilwell, Kan.
(Member Jackson County Medical Society)
Parsons, Richard P., St. Louis
Pascoe, James J., Nevada
Passanante, Bartholomew M., St. Louis

Passman, Harold, Kansas City
Patient, William F., St. Louis
Patrick, Roman L., Jr., St. Louis
Patterson, Donald R., Joplin
Patterson, Grover S., Carthage
Pawol, S. E., St. Louis
Payne, David E., Columbia
Payne, John H., Las Vegas, Nev. (Member St. Louis Medical Society)
Payne, John W., Columbia
Payne, Meredith J., St. Louis
Payne, William B., Kansas City
Pearman, Carl C., Columbia
Pearse, Roy W., Jr., Nevada
Pearson, Paul E., Kansas City
Peck, Chester R., Jr., Kennett
Peden, Burnet W., Clayton
Peden, James C., Jr., St. Louis
Peden, Joseph C., St. Louis
Peden, Joseph C., Jr., St. Louis
Peebles, J. B., Jr., Kirkwood
Peete, Don C., Kansas City
Pelz, Mort D., Miami, Fla. (Member St. Louis Medical Society)
Pemberton, Charles W., Arlington, Va. (Member Grand River Medical Society)
Pence, F. Wendell, Carthage
Pendell, Paul W., Rolla
Penner, Stanley, Kansas City
Penninger, William H., Springfield
Pennington, Francis E., St. Louis
Pennoyer, James, Webster Groves
Pentecost, Richard L., Kansas City
Perez, Blanca M., St. Louis
Perez-Mesa, Carlos, Columbia
Perez-Tamayo, Ruheri, Columbia
Perico, Carlos J., Kansas City
Perkins, David E., St. Louis
Perkoff, Gerald T., St. Louis
Perll, Maurice F., Kansas City
Perll, Rita D., Kansas City
Perna, Vincent P., St. Louis
Pernoud, Flavius G., Jr., St. Louis
Pernoud, Michael F., St. Louis
Perry, H. Mitchell, Town & Country
Perry, Lawrence L., Jr., Kansas City
Perry, Ralph, Kansas City
Perry, William D., St. Louis
Petersen, Arthur G., Prairie Village, Kan. (Member Jackson County Medical Society)
Petersen, Gerald D., Prairie Village, Kan. (Member Jackson County Medical Society)
Petersen, Harold E., St. Joseph
Peterson, Bonita J., Kansas City
Peterson, Carl M., Kansas City
Peterson, Donald B., Fulton
Peterson, Frederick D., St. Louis
Peterson, George L., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Peterson, Malcolm L., St. Louis
Peterson, Milton C., Kansas City
Peterson, Stanley S., Springfield
Peterson, Walter R., Kansas City
Petitt, Robert M., Kansas City
Petry, Ezra L., Kansas City
Petty, Jerry M., St. Louis
Pfefer, Leland U., Columbia
Pfeffer, Robert I., St. Joseph
Pfeifer, Oliver C., St. Louis
Pfuetze, Edwin L., Kansas City
Phillips, Hanford, St. Louis
Phillips, John J., Brentwood
Phillips, William J., St. Louis
Philpott, Gordon W., St. Louis
Pianetto, M. Besso, Koch
Piccione, Leonard N., St. Louis
Pickard, Clarence M., Columbia
Pickard, Nicholas S., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Pickens, E. Allen, St. Louis
Pickens, Edgar E., San Diego, Calif. (Member Jackson County Medical Society)
Pierce, John A., St. Louis
Pierron, John B., Kansas City
Pifer, Lawrence H., St. Joseph
Pileggi, Felix A., N. Kansas City
Pilla, Lawrence A., St. Louis
Pingelton, William B., Columbia
Pinsker, Oscar T., Kansas City
Piper, August T., St. Louis
Piper, Donald K., Kansas City
Pipes, Keith E., St. Louis
Pipkin, Garrett, Kansas City
Pitsinger, Nolan B., St. Louis
Pitts, Ferris N., Jr., St. Louis
Pitts, Ronald L., Hickman Mills
Platt, William R., Clayton
Platz, John H., Carrollton
Plax, Steven, St. Louis
Plesons, John D., St. Louis
Plowman, Edward M., Hannibal
Plumlee, John E., Columbia
Plumpe, W. Tupper, St. Louis
Plunkett, Littleton J., Poplar Bluff
Podos, Steven M., Bethesda, Md. (Member St. Louis County Medical Society)
Podrecca, Guido I., Springfield
Poggemeier, William H., Jr., St. Charles
Polk, George M., Kansas City
Polk, John W., Springfield
Pollack, Maxwell A., St. Louis
Pollock, Leo H., Kansas City
Poor, Carl W., Neosho
Pope, Charles H., Jr., Independence
Popp, Carl G., Sikeston
Porporis, Arthur A., St. Louis
Porter, Jim C., Lebanon
Porter, Louis, Kansas City
Porter, Russell C., Seal Beach Calif. (Member Clay County Medical Society)
Portuondo, Bonaventura C., St. Louis
Post, Cyril A., Poplar Bluff
Post, John P., Washington
Post, Stephen L., St. Louis
Post, Winfred L., Joplin
Potashnick, Robert, St. Louis
Potchen, E. James, St. Louis
Potter, Caryl A., Jr., St. Joseph
Potter, Lee G., Kansas City
Potter, Reese H., St. Louis
Potts, Donald A., Independence
Powell, Charles B., Florissant
Powell, Earl A., St. Louis
Powell, Edwin M., Springfield
Powell, Nelson E., Kansas City
Powell, Robert G., Joplin
Powers, John M., Independence
Powers, Pierce W., St. Louis
Powers, William E., St. Louis
Pranger, Sylvester H., St. Louis
Prater, Bill G., Springfield
Presnell, Cleitus A., St. Louis
Press, Maurice J., St. Louis
Preston, Albert, Jr., Kansas City
Price, Charles H., Miami, Okla. (Member Ozark County Medical Society)
Price, Kenneth C., St. Louis
Printz, Joseph H., Kansas City
Printz, Otto J., Kansas City
Probst, Raymond E., St. Louis
Probstein, Jacob G., St. Louis
Proctor, Donald C., Sedalia
Prophete, B., St. Louis
Pruett, Burchard S., St. Louis
Pruett, Don S., St. Louis
Pruett, Hubert S., St. Louis
Pruett, Paul L., Springfield
Pu, Pin H., Kennett
Pucci, Gregory L., Kansas City
Pugh, Reginald P., Columbia
Pugh, Richard G., Independence
Puls, Jerry L., Kansas City
Purcell, Harry K., St. Louis
Purcell, Paul L., Smithville
Pyne, Herbert S., St. Louis

Q

Quer, Erich A., Kansas City
Quevy, Richard G., Farmington, Mich. (Member St. Louis County Medical Society)
Quick, Richard T., Chevy Chase, Md. (Member St. Louis Medical Society)
Quinn, Paul S., Springfield
Quistgard, Paul C., Hollister

R

Racadio, Severo M., Kirkwood
Rachlin, Maxwell, St. Louis
Rader, Ada B., Kansas City
Rader, Edward S., St. Louis
Rader, George B., St. Louis
Radke, John D., St. Louis
Ragland, John E., Ballwin
Ragsdale, Edward, Scott Air Force Base, Ill. (Member St. Louis Medical Society)
Ragsdale, George M., Paris
Raich, Robert A., Kansas City
Rainey, Robert, St. Louis
Rainwater, Elmer H., Springfield
Rall, Kenneth L., Columbia
Ramey, Ehret O., Kansas City
Ramos, John F., Jr., Kansas City
Ramsey, Robert H., Ferguson
Randall, Don Q., St. Charles
Randolph, Bernard C., St. Louis
Rannie, Paul R., Independence
Rao, Carlo, St. Louis
Raper, Charles A., Poplar Bluff
Rapp, Earl L., Hannibal
Rapp, Harold B., Cape Girardeau
Rappold, H. O., St. Ann
Ratzlaff, Neal S., Kansas City
Rawlins, Fred E., Cape Girardeau
Rawlins, Kelly, Holden
Raybuck, Harry E., St. Louis
Raynor, Richard, Marshall
Recano, Ricardo Q., St. Louis
Rector, Joe L., Jr., Kansas City
Redington, James C., Jr., Clayton
Redmond, William, St. Joseph
Reed, G. H., Osceola
Reed, Jonathan R., St. Louis
Reeder, Charles C., Smithville
Reese, A. Victor, St. Louis
Reh, Edward P., St. Louis
Rehm, Ralph, Bloomfield
Reich, Harry A., St. Louis
Reichert, M. Cecelia, St. Louis
Reiches, Aaron J., St. Louis
Reid, James A., Marshall
Reider, Richard A., Warson Woods
Reilly, Pierce J., St. Louis
Reineck, John A., St. Louis
Reinhard, Edward H., St. Louis
Reinhardt, George R., Kansas City
Reis, Carl J., St. Louis
Reister, Dorothy D., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Reister, Philip D., Kansas City
Reitman, Stanley, St. Louis
Reitz, Carl H., Kansas City
Rendleman, David D., St. Louis
Rendleman, George F., St. Louis
Rendleman, George, Jr., St. Louis
Rennard, Marvin, St. Louis
Repetto, Albert M., St. Louis
Repp, Theodore J., St. Louis
Reuter, Louis A., St. Louis
Revare, Paul, Kansas City
Reyes, Jose T., St. Louis
Reyes, Luis A., St. Louis
Reyes, Rosendo A., Clayton
Reynolds, Clarence C., Kansas City
Reynolds, Fred, St. Louis
Reynolds, Garland A., Cape Girardeau
Reynolds, James R., Neosho
Reynolds, M. Wayne, Lee's Summit
Rhoades, Arthur B., Kansas City
Rhodes, Euhlan L., Warsaw
Rice, Carl E., Hillsboro
Rice, Earl R., Fort Lauderdale, Fla. (Member St. Louis Medical Society)
Richards, Frank O., St. Louis
Richardson, George A., Union
Richardson, Marion W., Kansas City
Richardson, Thomas F., Clayton
Richardson, William D., Ghana, W. Africa (Member Clay County Medical Society)
Richardson, William R., Union
Richman, Elmer, Chesterfield
Richmond, Michael R., St. Louis
Richter, William B., Stockton
Ricketts, Harry M., St. Louis
Riddell, Richard V., St. Joseph
Ridenhour, C. E. Gene, Columbia
Ridgeway, William G., St. Louis
Ridings, Harold D., Cape Girardeau
Ridzon, Thomas J., St. Charles
Ries, Douglas A., St. Louis
Riffel, Gordon W., Bourbon
Rifkin, Shale M., St. Louis
Riggio, Salvatore N., St. Louis
Rigney, Levi M., Springfield
Rikli, Arthur E., Columbia
Riley, Charles T., Richmond
Riley, John J., St. Louis
Riley, Joseph P., Jr., Parthenon, Ark. (Member Jackson County Medical Society)
Riller, Lowell E., Kansas City
Rinck, Edward C., Nevada
Ring, Edward M., St. Louis
Ringo, Henry J., Centertown
Rink, Richard A., Columbia
Rinker, Carl T., Jr., Columbia
Rippey, John H., Kansas City
Ritchie, Frances R., St. Louis
Ritter, Hubert A., St. Louis
Ritter, Paul J., St. Louis
Ritter, Raymond A., Cape Girardeau
Ritterbusch, James K., Fulton
Rizzo, Adolfo E., St. Louis
Roach, Edward A., St. Charles
Roark, Glenn E., Columbia
Robben, G. Garry, Chesterfield
Roberts, Grosvenor G., Kansas City
Roberts, Harold K., Clayton
Roberts, Harold M., Kansas City
Roberts, John P., Kirkwood
Roberts, John R., St. Louis

Roberts, L. Marvin, Kansas City
Roberts, Paul A., Sweet Springs
Roberts, Phyllis Grant, St. Joseph
Robertson, Frank G., St. Louis
Robertson, William D., Poplar Bluff
Robertson, William D., Kansas City
Robichaux, Eugene B., Excelsior Springs
Robinett, Wade V., Kansas City
Robins, Eli, St. Louis
Robinson, Arthur W., Kansas City
Robinson, Edith C., St. Louis
Robinson, E. Kip, Kansas City
Robinson, Gary Lewis, Springfield
Robinson, George G., Humansville
Robinson, G. Wilse, Jr., Kansas City
Robinson, John A., Edgerton
Robinson, Van M., Kansas City
Robinson, William J., Kansas City
Robison, James T., Jr., Kansas City
Roblee, Melvin A., St. Louis
Roche, Maurice B., St. Louis
Rockoff, S. David, St. Louis
Rodeman, John M., Sedalia
Rodes, Ned D., Mexico
Rodgers, Elrie P., Columbia
Rodgers, George H., Overland Park, Kan. (Member Jackson County Medical Society)
Rodgers, Samuel U., Kansas City
Rodriguez, Ubaldo R., St. Louis
Roehrs, Marvin E., Marshall
Rogers, Cyril H., St. Louis
Rogers, John A., St. Louis
Rogers, John T., St. Joseph
Rogers, Robert L., Kansas City
Rohlfing, Edwin H., St. Louis
Rohlfing, Walter H., St. Louis
Roller, Merrill J., Hannibal
Rollins, Harry D., Winona
Rolufs, Lloyd S., Kirkwood
Rolwing, E. Charles, Charleston
Romero, Richard N., Crystal City
Ronald, Douglas C., Butler
Roodman, Herman J., Overland
Roos, Albert, St. Louis
Roper, Charles L., St. Louis
Roper, Stanley D., Ozark
Rose, Charles W., Kansas City
Rose, Dalton K., St. Louis
Rosecan, Marvin, St. Louis
Rosen, Max, Springfield
Rosenbaum, Harry D., St. Louis
Rosenbaum, Herbert E., St. Louis
Rosenbaum, Louis J., Phoenix, Ariz. (Member St. Louis County Medical Society)
Rosenfeld, Henry, St. Louis
Rosenthal, Irwin I., St. Joseph
Rosenthal, Ronald E., St. Louis
Ross, Gilbert, Jr., Columbia
Rost, William B., St. Joseph
Roter, Alexander M., St. Charles
Roth, John J., St. Louis
Rother, Paul H., St. Charles
Rothman, David, St. Louis
Rothweiler, Robert J., St. Louis
Roufa, Joseph F., St. Louis
Roulhac, George E., St. Louis
Rouse, David M., Mexico
Rouse, Ernest T., St. Louis
Rowlette, Avery P., Moberly
Roy, Joseph A., Jennings
Royce, James J., Sarcoxie
Royce, Robert K., St. Louis
Royse, Roy P., Sullivan
Royston, Grandison D., Hope, Ark. (Member St. Louis Medical Society)
Rozen, Jay I., Kansas City
Rubenstein, Melvin, St. Louis
Rubin, Herbert M., Kansas City
Rubin, Robert, St. Louis
Rubin, Sidney, Kansas City
Rubnitz, Leon H., Kansas City
Rudi, Herbert J., St. Louis
Rufe, John R., Kansas City
Ruff, T. Eugene, Poplar Bluff
Ruhling, Rudy, St. Louis
Rusan, Thomas E., St. Louis
Russell, Barbara E., Rolla
Russell, Earl D., Springfield
Russell, Garth, Columbia
Russell, Herman E., Berkley
Russell, James L., Kansas City
Russell, Joseph P., Jefferson City
Russell, Robert K., Raytown
Rutledge, John F., Festus
Rutledge, William J., Campbell
Ryan, John B., Washington
Ryan, John H., St. Joseph
Ryan, John J., Clayton
Ryan, Robert E., St. Louis
Ryan, Thomas J., Jefferson City

S

St. John, Thomas C., St. Louis
Sabates, Felix N., Kansas City
Sachar, Leo A., St. Louis
Saferstein, Lester, Kansas City
Sala, Jose M., Springfield
Saladino, Anthony, Kansas City
Salanga, P. B., St. Louis
Sale, Llewellyn, Jr., St. Louis
Salmon, Mickey L., St. Louis
Samad, Isa A., St. Louis
Sammons, Harry C., St. Louis
Samuelson, Edward A., Kansas City
Sanders, Donald C., Kansas City
Sanders, George E., Excelsior Springs
Sanders. Harmon U., Jr., Lawrence, Kan. (Member Jackson County Medical Society)
Sanders, Jack S., Jefferson City
Sanders, Robert D., St. Louis
Sanders, Theodore E., St. Louis
Sanders, William F., Kansas City
Sandow, Theodore, Jr., Kansas City
Sanford, Edward F., St. Louis
Santanello, William M., St. Louis
Santiago, Miguel, St. Louis
Santillano, Antonio B., Ballwin
Santoro. Carlos G., Kansas City
Saper, Philip, Kansas City
Sargent, Alden P., Sikeston
Sargent, John P., Sikeston
Sarno, Samuel M., Morehouse
Sasano, Joseph R., Jr., Kansas City
Sasser, William F., St. Louis
Sato, George, St. Louis
Sauer, Donald C., University City
Sauer, Gordon C., Kansas City
Sauer, W. Nicholas, St. Louis
Saunders, Everett L., Independence
Sawyer, Floyd E., Kansas City
Sawyer, James, St. Louis
Scales, Margaret B., Kansas City
Scanlon, Robert C., Springfield
Schaan, Robert C., St. Louis
Schaef, Mary L., St. Louis
Schaefer, George J., St. Louis
Schaefer, Glennon S., Jr., St. Louis
Schaeffer, Edward M., Springfield
Schaerer, Jacques P., St. Louis
Schaerrer, William C., Kansas City
Schaper, Ernest H., St. Louis
Schattyn, Martyn, St. Louis
Schechter, Samuel E., St. Louis
Scheele, Paul M., St. Louis
Scheer, George E., St. Louis
Scheff, Harold, St. Louis
Schengber, John S., St. Louis
Schertz, Truman B., N. Kansas City
Scheuber, Charles, Columbia
Schewe, Elmer J., Jr., Columbia
Schierman, William D., Clayton
Schiffmacher, Jack E., Kansas City
Schillie, Gene A., Kansas City
Schlansky, Seymour M., St. Louis
Schlenker, Lawrence, St. Louis
Schluer, Elmer P., St. Louis
Schmidt, C. Robert, Kansas City
Schmidt, Charles A., Gerald
Schmidt, Edwin H., St. Louis
Schmidt, Edmund M., St. Louis
Schmidt, Herbert J., Joplin
Schmidt, J. H., Jefferson City
Schmiemeier, Roy H., St. Louis
Schneider, Sam, St. Louis
Schneider, Thomas A., St. Charles
Schnellmann, Donald C., St. Ann
Schoeberl, Cletus B., Joplin
Schoeck, Albert F., St. Louis
Schoedinger, George R., III, St. Louis
Schoentag, John S., St. Louis
Schoolman, Arnold, Kansas City
Schopp, Alvin C., St. Louis
Schottman, Gerhard W., Jr., Kansas City
Schranck, Charles R., St. Louis
Schroeder, Henry A., W. Brattleboro Vt. (Member St. Louis Medical Society)
Schroff, Carle H., Springfield
Schuessler, Wolfgang P., St. Louis
Schuetz, Alfred, St. Charles
Schulte, Gregory A., Joplin
Schultz, E. Robert, St. Louis
Schultz, Irwin, St. Louis
Schultz, Loraine E., Branson
Schultz, Samuel, St. Louis
Schutz, Carl B., San Marcos, Calif. (Member Jackson County Medical Society)
Schutz, Richard B., Kansas City
Schwartz, Eugene J., Springfield
Schwartz, Frederick O., St. Louis
Schwartz, Henry G., St. Louis
Schwartz, John T., Columbia
Schwartz, Melvin M., St. Louis
Schwartzman, Bernard, St. Louis
Schweiss, John F., St. Louis
Schweitzer, Fred C., Jr., Springfield
Sciortino, Gaspare, St. Louis
Sciortino, John S., St. Louis
Scokel, Paul W., III, St. Charles
Scopelite, Joseph A., St. Louis
Scorse, Sidney W., Joplin
Scott, E. David, Jefferson City
Scott, Charles C., Kansas City
Scott, Elwin P., St. Louis
Scott, Horace W., St. Louis
Scott, Wendell G., St. Louis
Seabaugh, Loy R., Cape Girardeau
Seabaugh, Oda L., Cape Girardeau
Seabaugh, Ottis D., Webster Groves
Seabaugh, William O. L., Cape Girardeau
Seabold, John A., University City
Seddon, John W., St. Louis
See, William B., Columbia
Seeley, James J., St. Louis
Seely, Clark W., Kansas City
Seevers, Ruth, Osceola
Seib, George A., St. Louis
Sells, Kenneth J., Kansas City
Senhauser, Donald A., Columbia
Senn, Emmett J., Herculaneum
Senne, Herbert C., St. Joseph
Sennott, John S., Jefferson City
Senor, Samuel E., St. Joseph
Senturia, Ben H., St. Louis
Senturia, Hyman R., St. Louis
Sertl, John D., St. Louis
Sevastianos, Aristides E., St. Louis
Sevin, Omar R., Rockhall, Md. (Member St. Louis Medical Society)
Sexton, Daniel L., St. Louis
Sexton, Elmer E., St. Louis
Shackelford, Horace H., St. Louis
Shackter, Bruce I., Springfield
Shah, Anwar, St. Louis
Shahan, Philip T., St. Louis
Shalet, Malcolm F., Kansas City
Shanahan, Mary Patricia, Joplin
Shanahan, Phil J., St. Louis
Shane, Ramona, Springfield
Shaner, John F., St. Louis
Shank, Robert E., St. Louis
Shapiro, Herbert N., St. Louis
Shapiro, Lazare M., Kansas City
Shapleigh, John B., St. Louis
Sharp, Austin R., St. Louis
Shatz, Burton A., St. Louis
Shaw, Edward J., St. Louis
Shaw, William J., Fayette
Shaw, William J., Jr., Fayette
Shea, James G., Gerald
Sheahan, Edwin L., Atlanta, Ga. (Member St. Louis Medical Society)
Sheahon, John A., Kansas City
Shechter, Nathan, Kansas City
Sheets, Martin E., Chesterfield
Sheffield, William, Kirkwood
Shelden, Russell D., Kansas City
Shell, William C., Sikeston
Shelton, Earl W., St. Louis
Shelton, Edward O., Eldon
Shen, Jerome T. Y., St. Louis
Sherard, Julius C., St. Louis
Sheridan, Edmund R., St. Louis
Sherwin, Charles S., St. Louis
Shevlin, Charles F., St. Joseph
Shieber, William, St. Louis
Shields, J. B., St. Louis
Shifrin, Alexander, Kansas City
Shireman, Kenneth L., Kansas City
Shires, Edward B., Kansas City
Shirey, Arnold G., Hayti
Shively, John A., Columbia
Shobe, Frank O., St. Louis
Shockley, Clarence J., Kansas City
Shofstall, Charles K., Kansas City
Shopfner, Charles E., Kansas City
Shoss, Milton, Cape Girardeau
Shuey, Herbert H., Kansas City
Shull, George D., Jefferson City
Shuman, Joseph S., St. Louis
Shumate. L. St. Clair, Reeds Spring
Shuter, Eli R., St. Louis
Shyken, Herman, St. Louis
Shypper, Moses J., Van Nuys, Calif. (Member Jackson County Medical Society)
Siceluff, Joseph G., Springfield
Siegel, Carl D., Kansas City
Siegel, Peter V., Washington, D. C. (Member Pettis County Medical Society)
Siemers, George E., St. Louis
Siesener, Herbert H., St. Louis
Sievers, Edward F., Hollywood Beach, Fla. (Member St. Louis Medical Society)

Sights, Warren P., Jr., Columbia
Sigmund, Charles A., St. Ann
Signorelli, Andrew J., St. Louis
Silberman, Henry K., Columbia
Silsby, Don J., Springfield
Silsby, Harry D., Springfield
Silver, Bernd, St. Louis
Silver, Herbert, St. Louis
Silverberg, Charles, St. Louis
Silvermintz, Saul D., Ladue
Simmons, Donald D., Kansas City
Simmons, Earl M., Jr., Columbia
Simmons, John L., Kansas City
Simms, Otho M., St. Charles
Simon, David L., St. Louis
Simon, Jerome I., St. Louis
Simon, Nathan M., Clayton
Simon, Sanford, Kansas City
Simpson, Albert P., Springfield
Simpson, Emerson L., Springfield
Simril, Wayne A., St. Louis
Sims, William A., Jr., St. Louis
Sincox, Charles H., Platte City
Singleton, John M., III, Kansas City
Sisk, James C., St. Louis
Sisson, Richard G., St. Louis
Skeffington, Mary Jane, St. Louis
Skilling, David M., Jr., St. Louis
Skillman, Robert K., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Skimming, W. Lee, St. Louis
Skinner, John S., St. Louis
Skinner, John T., Kansas City
Sklenar, Donald E., St. Joseph
Slankard, J. Edward, Kansas City
Slaughter, Carl R., N. Kansas City
Slaughter, Shelby C., Fredericktown
Slentz, Edwin L., Kansas City
Slentz, William A., Kansas City
Slickman, Robert A., Kansas City
Slotkin, Robert J., St. Charles
Sly, William S., St. Louis
Smiley, William, St. Louis
Smit, Herbert M., St. Louis
Smith, Arthur B., Kansas City
Smith, Benjamin F., Jr., St. Louis
Smith, C. Franklin, Willow Springs
Smith, C. Souter, Springfield
Smith, Carl C., Moberly
Smith, Dermott, St. Louis
Smith, Garland F., St. Louis
Smith, George E., St. Louis
Smith, Grafton A., Columbia
Smith, Herbert P., St. Louis
Smith, Hubert E., Kansas City
Smith, Hugh R., St. Louis
Smith, Ira T., Kansas City
Smith, J. Earl, St. Louis
Smith, James O., Clinton
Smith, Jason N., Jr., Columbia
Smith, Joe R., Columbia
Smith, John R., St. Louis
Smith, Katherine W., Kansas City
Smith, Kathleen, St. Louis
Smith, Kenneth R., Jr., St. Louis
Smith, Morton E., St. Louis
Smith, Norris W., St. Louis
Smith, Othello D., Mission, Kan.
(Member Jackson County Medical Society)
Smith, Robert S., St. Louis
Smith, Robert W., Marceline
Smith, Roland T., Joplin
Smith, Rollin H., West Plains
Smith, Sidney E., St. Louis
Smith, Ted P., Rolla
Smith, Wallace B., Independence
Smith, William J., Windsor
Smith, William R., Carthage
Smolik, Edmund A., St. Louis
Smoller, Martin B., St. Charles
Smull, Ned W., Kansas City
Snead, William H., Jr., Springfield
Sneid, Philip, Kansas City
Snider, Wilbur R., Independence
Snyder, Edward N., Los Angeles, Calif.
(Member St. Louis Medical Society)
Somers, John E., Columbia
Sommer, Conrad S., St. Louis
Sommer, Ross B., St. Louis
Somoza, Jose, Kansas City
Soper, William D., Excelsior Springs
Sopuch, John A., St. Louis
Sorenson, George D., St. Louis
Sosebee, Lee A., Columbia
Soto, Alberto A., Clayton
Soucy, John C., St. Charles
Soule, Samuel D., St. Louis
Spafford, Allen L., Kansas City
Spalding, David L., Springfield
Spalding, Donald G., St. Louis
Spalding, Wilber B., Plattsburg
Spalding, Wilber B., Jr., Kansas City
Sparkman, Thomas C., Cape Girardeau
Spears, Charles A., Branson
Spears, Joe L., Cabool
Spector, Gene W., St. Louis
Spencer, Andrew D., St. Louis
Spencer, Donald M., Kansas City
Speno, Angelo A., St. Louis
Spies, Barbara J., Kansas City
Spinzig, Edgar W., Kirkwood
Spitz, Milton A., Chicago, Ill.
(Member St. Louis County Medical Society)
Spitz, Richard H., St. Louis
Spoeneman, Marlin C., St. Louis
Spoenemann, Walter H., St. Louis
Sportsman, Weldon L., Smithville
Spratt, John S., Jr., Columbia
Spurgeon, Milo J., Columbia
Spurny, Otto M., Kansas City
Stacey, Wallace R., Independence
Stacy, Winton T., St. Joseph
Staehle, Melvin E., St. Louis
Stafford, Walter R., St. Louis
Staggs, William A., Kansas City
Staley, Harry R., Kansas City
Stallard, Donald J., St. Joseph
Stamp, Warren G., Charlottesville, Va.
(Member St. Louis Medical Society)
Stanfield, Ned M., Jr., St. Louis
Stansbrough, Raymond A., Normandy
Staple, Tom W., St. Louis
Starkloff, Gene B., St. Louis
Starkloff, Max, St. Louis
Statland, Harry, Kansas City
Statland, Morris, Kansas City
Staton, R. Hamilton, Carrollton
Stauffacher, C. Gordon, Sedalia
Stauffer, Harry B., Jefferson City
Steele, Jack T., St. Louis
Steele, James C., Jr., Hannibal
Steffen, Lawrence F., Kansas City
Stegman, Elmer G., Raytown
Stein, Arthur H., Jr., St. Louis
Stein, Harry J., St. Louis
Stein, Joseph W., Kansas City
Stein, Leonard P., St. Louis
Steinbeck, Herbert D., Ridgefield, Conn.
(Member Franklin-Gasconade-Warren County Medical Society)
Steinbeck, Herbert F., Montgomery City
Steinberg, Franz U., St. Louis
Steinberg, Lawrence S., St. Louis
Steiner, Alexander J., St. Louis
Stelle, Charles W., Kansas City
Stelmach, Walter J., Kansas City
Stephens, LeRoy J., St. Louis
Stephens, William A., St. Louis
Stephenson, Hugh E., Jr., Columbia
Stergen, Nick E., Florissant
Sterkel, Richard L., St. Louis
Sterling, John A., Kirkwood
Stevens, Edward M., St. Joseph
Stevens, Robert W., St. Louis
Stewart, Frances H., St. Louis
Stewart, John W., St. Louis
Stewart, Mark A., St. Louis
Stewart, Robert B., Springfield
Stewart, Robert H., Sedalia
Stewart, R. Wendell, Springfield
Stewart, Wendell K., New York, N. Y.
(Member Cape Girardeau County Medical Society)
Stewart, William J., Columbia
Stickle, Arthur W., St. Louis
Stickler, Ralph O., Kirksville
Stindel, Charles E., St. Louis
Stockton, Raymond W., Kansas City
Stockwell, A. Lloyd, Kansas City
Stockwood, Robert C., Sedalia
Stohr, Paul E., San Antonio, Tex.
(Member St. Louis Medical Society)
Stokes, James M., St. Louis
Stolar, Jacob, St. Louis
Stoneman, William, III, St. Louis
Storey, Gary A., St. Louis
Stotts, Charles S., Fredonia, Kan.
(Member Jackson County Medical Society)
Stoy, Robert P., Columbia
Stratemeier, Edward H., Kansas City
Stratman, Clarence A., N. Kansas City
Strauchen, Gilbert W., Key Largo, Fla.
(Member St. Louis County Medical Society)
Strauss, Arthur E., St. Louis
Strauss, Carl F., Kansas City
Streetor, Roderick D., St. Louis
Strehlman, Benjamin G., Union
Stribling, Thomas L., Independence
Stricker, Emil A., St. James
Stricker, Harold C., Jefferson City
Strobach, Robert L., Butler
Strominger, Donald B., St. Louis
Strong, Richard M., Hannibal
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Stryker, Garold V., Venice, Fla.
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Stuart, Daniel D., Brunswick
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Sturtevant, Harwood N., Springfield
Stutsman, Albert C., St. Louis
Suba, Antonio R., St. Louis
Sudholt, Alfred F., Jr., St. Ann
Sueper, Robert H., St. Louis
Sugarbaker, Everett D., Jefferson City
Sullivan, Clement J., St. Louis
Sullivan, Wm. Wallace, St. Louis
Summers, Caldwell B., Kansas City
Summers, John B., St. Louis
Summers, Joseph S., Jr., Jefferson City
Summers, Thomas F., St. Louis
Sunderman, Raymond C., St. Louis
Sundstrom, Frank D., Springfield
Sunshine, Herbert, St. Louis
Susanka, William D., St. Louis
Susman, Irvin C., St. Louis
Susman, Noah, St. Louis
Sutter, Richard A., St. Louis
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Swaykus, Bernard T., St. Ann
Sweany, Henry C., Columbia
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Sydow, Henry A., Fulton
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T

Talbert, Clifford R., Jr., Cape Girardeau
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Taveras, Juan M., St. Louis
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Taylor, Eugene D., St. Louis
Taylor, Eugene T., St. Louis
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W

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Webb, Paul B., Jr., St. Louis
Webb, Paul K., St. Louis
Webber, Wm. B., St. Louis
Weber, J. R., St. Louis
Weber, Sol, St. Louis
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Willoughby, Jean B., Kansas City
Willumsen, Henry C., St. Joseph
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Wilson, John E., Columbia
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Wilson, Loys C., Kennett
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Wilson, Vernon E., Columbia
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Wimmer, Warren J., St. Louis
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Winer, Herbert J., Kansas City
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Winter, Tyrus D., St. Louis
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Winters, Kathleen, St. Louis
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Wippo, Edgar W., St. Louis
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Withrow, John B., Kansas City
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Witt, Frederick W., St. Louis
Witte, Marlys H., St. Louis
Wittgen, Edward M., St. Louis
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Wolff, Paul G., Cape Girardeau
Wolff, Ray J., St. Louis
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Wollschlaeger, Paul, Columbia
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Wood, George H., Carthage
Wood, James A., Clayton
Wood, William W., Springfield
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Woodruff, Robert A., Jr., St. Louis
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Woods, Ralph E., Clayton
Woods, S. Dwight, Kansas City
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Woolsey, Joyce E., St. Louis
Woolsey, Robert M., St. Louis
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Y

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Younger, Ernest, St. Louis
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Z

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Zink, Oscar C., St. Louis
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(Northwest Missouri Medical Society)

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Epple, Kathryn C., 502 E. Monroe St.
Epple, Lawrence K., 502 E. Monroe St.
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Jolly, Benjamin N., 112 N. Clark Ave.
Jolly, William H., 112 N. Clark Ave.
Kallenbach, Glen P., 321 N. Washington St.
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Williams, Robert S., Kemper Bldg.
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(Ozarks Medical Society)

BARTON COUNTY MEDICAL SOCIETY

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(West Central Missouri Medical Society)

BENTON COUNTY MEDICAL SOCIETY

BOLLINGER COUNTY
(Unorganized)

BOONE COUNTY MEDICAL SOCIETY
(Columbia 65201)

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Allen, Robert W., Rt. 2, St. Charles Rd.
Allen, William C., 508 W. Briarwood Lane
Almond, Carl H., 807 Stadium Rd.
Altman, Harold, 2100 E. Broadway
Amlinger, Philipp R., 1118 W. Rollins Rd.
Anderson, lvan A., 606 Medavista
Anderson, Philip C., 807 Stadium Rd.
Anderson, Thomas R., 822 Yale St.
Arnold, Richard C., P. O. Box 53
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Baker, A. Sherwood, 807 Stadium Rd.
Baker, James M., 16 S. 10th St.
Battersby, Richard S., Candle Light Lodge
Bingham, Hal G., 807 Stadium Rd.
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Blackwell, Charles W., 201 W. Broadway
Brooke, Clement E., 901 Edgewood Ave.
Brukardt, Diane, Student Health Service
Bruner, Claude R., 909 University Ave.
Buesseler, John A., 807 Stadium Rd.
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Bumgarner, Roger W., P. O. Box 975
Burkeholder, James N., 2002 S. Kentucky, Sedalia, 65301
Burns, Thomas W., 310 E. Brandon Rd.
Bynum, William R., P. O. Box 1266
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Chalkley, Judson 1., Boone County Hosp.
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Chiasson, E. Chaille, 203 W. Broadway
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Cook, Galen B., 1005 Cowan Dr.
Cooper, Maurice E., 1000 Wayne Rd.
Cope, James C., 1502 E. Broadway
Crosby, Alice S., 2019 Crestridge Dr.
Culley, Thomas S., 807 Stadium Rd.
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Donegan, William L., Ellis Fischel Cancer Hosp.
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Garfinkel, Lester S., 308 Defor Dr.
Garrett, Glen H., 909 University Ave.
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Griffin, William T., 807 Stadium Rd.
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Guthrie, Richard A., U. of Mo. Medical Center
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Hardwicke, Henry M., Ashland 65010
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Harris, Robert J., 2505 E. Broadway
Hart, William M., 807 Stadium Rd.
Haw, Marvin T., Jr., 1807 Jackson
Hori, Jose M., Ellis Fischel State Cancer Hospital
Hubbell, Ira G., 302 McNab Dr.
Hueser, James N., 610 West Blvd. So.
Ide, Carl H., 600 Laurel Dr.
Jackson, Robert L., 807 Stadium Rd.
Johnson, Richard E., Boone County Hosp.
Keown, Kenneth K., 807 Stadium Rd.
Kerr, S. Earl, 1308 Fieldcrest
Kubin, Milford T., Meadow Lark, R.F.D. 4
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Ladenson, Roland P., 16 S. 10th St.
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Landor, John H., 807 Stadium Rd.
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Leeper, Sidlee W., 1504 E. Broadway
Lewis, Ray B., 1502 E. Broadway
Lindberg, Donald, Route 4
Litton, Lynn O., Route 5
Litwiller, R. W., 1312 W. Broadway
Lodwick, Gwilym S., 208 W. Ridgeley Rd.
Logue, John T., 1504 E. Broadway
Lowry, Roberta L., 807 Stadium Rd.
Lucas, Fred V., 807 Stadium Rd.
Lukens, John N., Jr., U. of Mo. Medical Center
McElroy, Glenn L., 1504 E. Broadway
Mackenzie, James W., 807 Stadium Rd.
Marco, Philip J., 6819 Wildlife Rd., Malibu, Calif. 90265
Marienfeld, Carl J., 807 Stadium Rd.
Martin, Richard H., 807 Stadium Rd.
Martt, Jack M., 807 Stadium Rd.
Mayer, William D., 1001 Lakeshore Dr.
Metzgar, Marshall T., 807 Stadium Rd.
Miller, Leroy J., 1502 E. Broadway
Minnigerode, Turner L., 1304 Bradshaw Ct.
Mitchell, Franklin L., 810 Greenwood Ct.
Mitchell, Lynn D., 1502 E. Broadway
Moranville, Benedict A., 1504 E. Broadway
Mosby, Larry D., 107 E. Brandon Rd.
Muniz, Carlos E., 116 Tracy Dr.
Neal, M. Pinson, 807 Stadium Rd.
Nesbit, Wm. Michael S., 1317 Fieldcrest
Overholser, Milton D., 807 Stadium Rd.
Parrish, Henry M., 807 Stadium Rd.
Payne, David E., 804 Moon Valley Rd.
Payne, John W., 1504 E. Broadway
Pearman, Carl C., 923 College Park
Perez-Mesa, Carlos, Ellis Fischel State Cancer Hosp.
Perez-Tamayo, Ruheri, Ellis Fischel State Cancer Hospital
Pfefer, Leland U., 1504 E. Broadway
Pickard, Clarence M., 113 W. Broadway
Pingelton, William B., 113 W. Broadway
Plumlee, John E., 807 Stadium Rd.
Pugh, Reginald P., 206 S. Glenwood
Rall, Kenneth L., 1121 Danforth Dr.
Ridenhour, C. E. Gene, 1408 Pearl
Rikli, Arthur E., 4003 Faurot
Rink, Richard A., 807 Stadium Rd.
Rinker, Carl T. Jr., 912-A Fairview Rd.
Roark, Glenn E., C-6 Medical Center
Rodgers, Elrie P., Box 157
Ross, Gilbert, Jr., 807 Stadium Rd.
Russell, Garth, 1504 E. Broadway
Scheuber, Charles, 1504 E. Broadway
Schewe, Elmer J., Jr., 1232 Sunset Dr.
See, William B., 1504 E. Broadway
Senhauser, Donald A., 807 Stadium Rd.
Shively, John A., 807 Stadium Rd.
Sights, Warren P., Jr., 807 Stadium Rd.
Silberman, Henry K., Dept. of Psychiatry, University of Missouri Medical Center
Simmons, Earl M., Jr., 2216 Ridgefield Dr.
Smith, Grafton A., 917 Crestland Ave.
Smith, Jason N., Jr., 701 West Blvd. S.
Smith, Joe R., 1506 E. Broadway
Somers, John E., 807 Stadium Rd.
Sosebee, Lee A., 1504 E. Broadway
Spratt, John S., Jr., 105 S. Glenwood Ave.
Spurgeon, Milo J., 404 Edgewood Ave.
Stephenson, Hugh E., Jr., 807 Stadium Rd.
Stewart, William J., 909 University Ave.
Stoy, Robert P., 201 W. Broadway
Taylor, D. Dax, 807 Stadium Rd.
Tendai, Mark, 807 Stadium Rd.
Thomas, Horace E., 1504 E. Broadway
Thomas, Robert M., 113 W. Broadway
Thompson, lan M., 807 Stadium Rd.
Tinsley, John C., Jr., 16 S. Tenth St.
VanPeenen, Hubert J., 807 Stadium Rd.
Waggoner, Charles M., 201 W. Broadway
Wakerlin, G. E., 406 Turner Ave.
Walters, John H., 11 S. Williams St.
Walters, Laura, 11 S. Williams St.
Washington, Edward L., 1504 E. Broadway
Watson, Trevor F., 1504 E. Broadway
Webb, Joan L., 807 College Park
Weiss, James M. A., 807 Stadium Rd.
Wheeler, Paul C., Univ. of Mo. Med. Center
Wiggins, Roland L., 408 N. Garth
Wilson, George P., 201 W. Broadway
Wilson, Vernon E., U. of Mo., Lewis Hall, Room 120
Windmiller, Myrl E., 1504 E. Broadway
Wolcott, Lester E., 2417 Beachview Dr.
Wollschlaeger, Gertraud, 1718 E. Broadway
Wollschlaeger, Paul, 1718 E. Broadway
Woodruff, Calvin W., 807 Stadium Rd.
Yuen, Pun Fai, Lawton Indian Hospital, Lawton, Okla. 73501

BUCHANAN COUNTY MEDICAL SOCIETY
(St. Joseph)

Acuff, R. Philip, 702 Jule St. 64501
Ames, Mary B., 2318 Lovers La. 64505
Ames, William H., 902 Edmond St. 64501
Augustine, Robert W., 902 Edmond St. 64501
Beck, Paul M., Kirkpatrick Bldg. 64501
Beheler, Edward M., 2403 Frederick Ave. 64506
Benson, Scott C., 324 N. 6th St. 64501
Berney, Francis J., Kirkpatrick Bldg. 64501
Boteler, George M., 422 W. 47th St., Kansas City 64112
Bristow, Robert B., Physicians & Surgeons Bldg. 64501
Bryant, Sydney L., 902 Edmond St. 64501
Butler, Elza F., 902 Edmond St. 64501
Callman, George, State Hosp. No. 2 64502
Carpenter, George T., 902 Edmond St. 64501
Challener, William A., 111, 902 Edmond 64501
Christ, Martin H., 6106 King Hill Ave. 64504
Cox, John P., 902 Edmond St. 64501
Craig, Owen W. D., Kirkpatrick Bldg. 64501
Craig, Richard O., 3900 Miller Rd. 64505
Day, Maxwell, 1353 Buchanan Ave. 64501
DuMont, Clement C., 1905 Francis St. 64501
Ferguson, Luther J., 2907 Francis St. 64501
Fisher, Joseph L., 7th & Jule Sts. 64501
Forgrave, John R., 420 N. 8th St. 64501
Forgrave, Leon P., 420 N. 8th St. 64501
Forman, George W., P.O. Box 830 64502
Fuson, Levi H., Kirkpatrick Bldg. 64501
Grant, Claude S., 1302 Faraon St. 64501
Greenberg, Charles, 10669 Rochester Ave., Los Angeles, Calif. 90024
Grimes, Manning E., Kirkpatrick Bldg. 64501

Gunter, Joe S., 902 Edmond St. 64501
Handler, Eric, Physicians and Surgeons Bldg. 64501
Harner, Casper G., 902 Edmond St. 64501
Hayes, Paul W., 902 Edmond St. 64501
Herman, Allen I., Physicians and Surgeons Bldg. 64501
Howden, Thomas L., 2723 Francis 64501
Hughes, Judson M., Fulton Villa, Apt. #8, Fulton 65251
Ide, Lucien W., P. O. Box 830 64502
Jimenez, Jose, 1004 Rush Road 64502
Kieber, Robert W., Kirkpatrick Bldg. 64501
Kline, Carlyn M., 17 Stonecrest St. 64506
Kline, Edmund W., 510 Francis St. 64501
Knepper, Paul A., 902 Edmond St. 64501
Kulowski, Jacob, 2404 Highly St. 64506
Lee, Carleton H., 1402 Faraon St. 64501
Lehman, Philip C., 510 Francis St. 64501
McCaffree, Mary K., 510 Francis 64501
McDaniel, John R., 902 Edmond St. 64501
McDonald, Wilbur P., 301 N. 8th St. 64501
Maginn, Richard L., 702 Jule St. 64501
Marston, F. James, Jr., 902 Edmond St. 64501
Martin, John N., Physicians and Surgeons Bldg. 64501
Minton, Robert S., Log Cabin #1, Fortescue 64452
Moen, Berwyn H., 902 Edmond St. 64501
Morse, Marvin, 2702 Faraon St. 64501
Mothershead, John L., 2603 Frederick Ave. 64501
Muench, Albert H., Physicians and Surgeons Bldg. 64501
Mundy, Homer F., State Hospital No. 2 64502
Ness, Carl K., 902 Edmond St. 64501
O'Brien, Liam, State Hospital No. 2 64502
O'Connor, William B., 510 Francis St. 64501
Petersen, Harold E., 2401 Frederick Ave. 64501
Pfeffer, Robert I., 1915 N. 29th St. 64506
Pifer, Lawrence H., 1302 Faraon St. 64501
Potter, Caryl A., Jr., Pioneer Bldg. 64501
Redmond, William, Corby Bldg. 64501
Riddell, Richard V., 902 Edmond St. 64501
Roberts, Phyllis Grant, 3314 Linda La. 64506
Rogers, John T., 2502 Ashland Ave. 64506
Rosenthal, Irwin I., Kirkpatrick Bldg. 64501
Rost, William B., 2221 N.W. Extension Blvd. 64506
Ryan, John H., 301 N. 8th St. 64501
Senne, Herbert C., 223 N. 7th St. 64501
Senor, Samuel E., 722½ Francis 64501
Shevlin, Charles F., 902 Edmond St. 64501
Sklenar, Donald E., 228 Illinois Ave. 64504
Stacy, Winton T., 1215 N. 24th St., 64506
Stallard, Donald J., 902 Edmond St. 64501
Stevens, Edward M., 702 Jule St. 64501
Thomas, Forrest, State Hosp. No. 2 64502
Thompson, F. Gregg, III, 902 Edmond St. 64501
Tovar, Manuel, 13th & Faraon St. 64501
Wadlow, Ernest E., 510 Francis St. 64501
Waggoner, Sharon E., 301 Illinois Ave. 64504
Wallace, Hilen K., 5th and Francis St. 64501
Weed, Randal W., 702 Jule St. 64501
Weinand, Ernest E., 902 Edmond St. 64501
Whitsell, Ora E., 802 N. 23rd St. 64506
Willman, Charles R., 2405 Frederick Ave. 64501
Willumsen, Henry C., 902 Edmond St. 64501

BUTLER-WAYNE-RIPLEY COUNTY MEDICAL SOCIETY
(Poplar Bluff 63901)

Barbour, Marvin R., Kneibert Clinic
Beecher, Sheldon B., 1517 Rosedale Ave.
Biggs, Fred J., Jr., Kneibert Clinic
Brookreson, Alton D., 700 Hendrix Dr.
Brookreson, Alton F., 217 Oak St.
Caldwell, Fred, Kneibert Clinic
Camp, Richard V., Jr., 330 N. Second St.
Canlas, Emilio M., P. O. Box 1009
Cline, Harold H., Piedmont 63957
Dinelli, Frank E., 215 Oak St.
Engelhardt, Robert C., Kneibert Clinic
Gernstetter, Sangwill L., P. O. Box 473
Hansbrough, Eugene T., 623 Pine Blvd.
Harwell, J. Lester, 6810 Pershing, University City 63130
Hecker, Joseph E., Kneibert Clinic
Hoja, W. Alexander, Kneibert Clinic
Kneibert, Fred L., Kneibert Clinic
Ladyman, George H., 623 Pine St.
Leroux, Gene, Doniphan 63935
Loughead, John R., 330 N. 2nd St.
McLain, Bobby M., Route 2
McLane, Jerry F., 330 N. 2nd St.
McPheeters, James W., Sr., 330 N. 2nd St.
Macauley, Bernard J., 215 Oak St.
Markel, Arthur D., Kneibert Clinic
May, Albert L., Jr., 330 N. 2nd St.
Miller, David V., Kneibert Clinic
Moffett, James B., 823 Pine Blvd.
Parker, Arthur C., Jr., Kneibert Clinic
Plunkett, Littleton J., Jr., 330 N. 2nd
Post, Cyril A., 123 S. Broadway
Raper, Charles A., 330 N. 2nd St.
Robertson, William D., Poplar Bluff
Ruff, T. Eugene, Kneibert Clinic
Tapp, Ernest M., 634 Pine Blvd.
Tatum, John Henry, 623 Pine Blvd.
Tuma, Arthur T., 215 Oak St.
Turner, James H., 217 Oak St.
Turner, William F., 217 Oak St.
Ward, Robert L., 623 Pine
White, Barry B., 330 N. 2nd St.

CALDWELL COUNTY
(Grand River Medical Society)

CALLAWAY COUNTY MEDICAL SOCIETY
(Fulton 65251)

Brown, John J., 101 E. 6th St.
Brown, Katherine S., 1304 Vine St.
Cremer, William J., State Hosp. No. 1
Crews, Robert N., 612 Court St.
Durst, Henry, 610 Court St.
Gish, Rutledge, 5 E. 5th St.
Groce, George, 820 Jefferson St.
Hill, James E., 820 Jefferson St.
Jackson, Vernon B., State Hosp. No. 1
Kepler, Earl C., 207 Lee
Osbourn, Richard A., 102 Saults Addition
Peterson, Donald B., State Hosp. No. 1
Ritterbusch, James K., State Hosp. No. 1
Sydow, Henry A., 607 Court St.
Tellez, Edward R., 10 E. Reed
Tuttle, Jay F., State Hosp. No. 1
Wood, George F., 614 Market St.

CAMDEN COUNTY

Carnell, B. M., Camdenton 65020 (Member Mid-Missouri County Medical Society)
Garrison, T. W., Camdenton 65020 (Member Mid-Missouri County Medical Society)
Holley, Donald B., Camdenton 65020 (Member Mid-Missouri County Medical Society)
Wayland, Thomas A., Camdenton 65020 (Member Cole County Medical Society)

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY
(Cape Girardeau 63701)

Alyea, J. O., 937 Broadway
Ashley, Hugh V., P. O. Box 618
Ashley, Hugh V., Jr., P. O. Box 618
Bahn, Charles F., 1902 W. Broadway
Barnes, Seth S., 1854 Broadway
Blankenship, Dale M., 1930 Broadway
Burford, Edwin K., Jr., 937 Broadway
Campbell, Edward D., 937 Broadway
Chapman, Jean A., 1902 W. Broadway
Cochran, Jo R., 24 N. Sprigg St.
Crowe, John T., 937 Broadway
Dinkins, James A., 937 Broadway
Elrod, Dennis B., 211 N. Sprigg St.
Estes, Albert M., 714 Broadway
Herbert, Charles T., 824 Good Hope St.
Holcomb, John K., 24 N. Sprigg St.
Hoxworth, Gerald M., 210 Christine St.
Jaeger, Joseph N., 208 S. High St., Jackson 63755
Johnson, Earl W., 937 Broadway
Jung, J. Marshall, 101 E. El Cortez, R-4, Columbia 65201
Kasten, Melvin C., 1209 Sailer Circle
Keim, John H., 230 N. Sprigg St.
Kinder, James A., 937 Broadway
Kinder, Jerry L., 1834 Broadway
Kratz, Paul E., 2560 Gordonville Rd.
Lovinggood, Thomas A., 2505 Allendale
McDonald, Eugene F., 125 Court St., Jackson 63755
McGinty, Charles P., 1834 Broadway
Magaletta, George E., 937 Broadway
Nunnelly, Gordon M., 1924 Broadway
Nussbaum, Paul B., 1858 Broadway
Oehler, William F., 213 N. Sprigg St.
Otto, Thomas G., 1912 Broadway
Parsons, D. LeRoy, 24 N. Sprigg St.
Rapp, Harold B., 1011 N. Henderson St.
Rawlins, Fred E., 1607 Berthing Ave.
Reynolds, Garland A., P. O. Box 817
Ridings, Harold D., 937 Broadway
Ritter, Raymond A., 1912 Broadway
Seabaugh, L. R., 219 N. Pacific St.
Seabaugh, Oda L., 24 N. Sprigg St.
Seabaugh, William O. L., 24 N. Sprigg St.
Shoss, Milton, 937 Broadway
Sparkman, Thomas C., 210 Christine St.
Stewart, Wendell K., U. S. Naval Hosp., Box 36, FPO New York, N. Y. 09593
Talbert, Clifford R., 1902 Broadway
Terry, James W., Jr., 219 N. Pacific St.
Tygett, Glenn J., 215 N. Sprigg St.
Tygett, Joseph N., 1834 Broadway
Wallwork, Caleb, Jr., Illmo 63754
Weeks, George R., 937 Broadway
Williams, W. A., Jr., 24 N. Sprigg St.
Wilson, Charles F., 714 Broadway
Wolff, Paul G., 1819 Broadway

CARROLL COUNTY
(Grand River Medical Society)

CARTER-SHANNON COUNTY MEDICAL SOCIETY

Rollins, Harry D., Winona 65588

CASS COUNTY
(West Central Missouri Medical Society)

CEDAR COUNTY
(West Central Missouri Medical Society)

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

Arnold, Eugene L., 8338 Jennings Rd., Jennings 63136
Baker, Josephine D., Moberly 65270
Barnett, Floyd A., Paris 65275
Campbell, James E., Macon 63552
Chute, W. Deward, Moberly 65270
Cohrs, Clarence C., Moberly 65270
Collins, Gretchen D., Macon 63522
Dreyer, Philip V., Huntsville 65259
Eggleston, Donald E., Macon 63552
Fleming, J. Will, Jr., Moberly 65270
Fleming, Thomas S., Moberly 65270
Harms, Florian L., Salisbury 65281
Hasson, Robert, Moberly 65270
Huber, Lasley E., Moberly 65270
Miller, D. Herbert, 4410 Denison St., Muskogee, Okla. 74401
Ragsdale, George M., Paris 65275
Rowlette, Avery P., Moberly 65270
Smith, Carl C., Moberly 65270
Streetor, Roderick D., 245 Union Blvd., St. Louis 63108
Stuart, Daniel D., Brunswick 65236
Szymanski, Stanley R., Macon 63552
Tompson, Robert V., Moberly 65270
Young, Robert H., Moberly 65270

CHRISTIAN COUNTY
(Ozarks Medical Society)

CLARK COUNTY
(Lewis-Clark-Scotland County Medical Society)

CLAY COUNTY MEDICAL SOCIETY

Adams, Howard D., 114 N. Water St., Liberty 64068
Allain, James J., 2022 Swift St., N. Kansas City 64116
Allan, James R., 1236 Jesse James Rd., Excelsior Springs 64024
Allen, Louis A., 2800 Hospital Dr., N. Kansas City 64116
Armstrong, Jay H., 4812 Black Swan Dr., Shawnee Mission, Kan. 66216
Arst, Herbert E., 408 E. 68th St. N., Kansas City 64118
Balhuizen, John, 5601 N. Antioch Rd., Kansas City 64119
Banks, Frank R., Smithville Clinic, Smithville 64089
Bates, George C., 2730 S. Mall, Kansas City 64119
Boone, Daniel C., 5800 N. Grand Ave., Kansas City 64118
Bowles, Richard P., 112 N. Water St., Liberty 64068

Bruce, Paul C., 115 S. Titus Ave., Excelsior Springs 64024
Burke, Emmet K., 5140 Antioch Rd., Kansas City 64119
Castillo, Michael E., 5601 N. Antioch Rd., Kansas City 64119
Chiles, David R., Box 238, Smithville 64089
Coppinger, Thomas A., 306 E. 21st Ave., Kansas City 64108
Devine, Mark W., Jr., 5601 Antioch Rd., Kansas City 64119
Dunham, Robert H., 6022 N. Antioch Rd., Kansas City 64119
Edwards, Theodore F., 2029 Burlington St., Kansas City 64116
Fakhoury, Donald A., 4030 N. Oak St., Kansas City 64111
Fischer, Edward H., 306 E. 21st Ave., N. Kansas City 64108
Fotopoulos, Chris K., 2022 Swift, North Kansas City 64116
Fowler, I. Charles, 2025 Swift S., N. Kansas City 64116
Galbol, Harley, Box 950, 522 Elms Blvd., Excelsior Springs 64024
Gauer, Robert J., 525 N.W. 43rd Terr., Kansas City 64116
Glenn, Edward A., 8630 Oak, Kansas City 64155
Haley, Ted M., 405 E. 19th Ave., N. Kansas City 64116
Hall, James W., 7010 N. Cherry, Kansas City 64118
Hayes, Lawrence L., 8400 N. Oak Trafficway, Kansas City 64155
Hedges, Richard C., 402 St. Louis Blvd., Excelsior Springs 64024
Hendren, Glenn W., 114 N. Water St., Liberty 64068
Hendren, Thomas H., 2022 Swift, Kansas City 64116
Hodge, Robert H., 2204 E. 39th St., N. Kansas City 64109
Houck, Russell M., V. A. Hospital, Kecoughtan, Va. 23367
King, Phillip E., Westowne Place, Liberty 64068
Kirkland, Jerry A., 8630 N. Oak Trafficway, Kansas City 64155
Kuenzi, Donald E., 8630 N. Oak Trafficway, Kansas City 64155
Langhus, Melvin O., 104 W. Englewood Rd., N. Kansas City 64118
McCormick, James E., 4030 N. Oak St., Kansas City 64111
McCracken, Samuel R., 107 W. Spring St., Excelsior Springs 64024
McPhee, William R., 2800 Hospital Dr., Kansas City 64116
Marsh, Wallace S., Tulane Univ. School of Postgrad., New Orleans, La. 70118
Mullins, Bernard L., 405 E. 19th St., N. Kansas City 64108
Musgrave, David E., Excelsior Springs 64024
Parker, Robert H., 5601 N. Antioch Rd., Kansas City 64119
Perico, Carlos J., 405 E. 19th Ave., Kansas City 64116
Perry, Lawrence L., Jr., 6300 N. Lenox St., Kansas City 64151
Pileggi, Felix A., 405 E. 19th St., N. Kansas City 64108
Porter, Russell C., 1351 Weeburn Rd., Seal Beach, Calif. 90740
Reeder, Charles G., Smithville Clinic, Smithville 64089
Revare, Paul, 4100 Vivion Rd., Kansas City 64119
Richardson, William D., Baptist Medical Center, Nalerigu Via Gambaga, Ghana, W. Africa
Roberts, L. Marvin, 5140 Antioch Rd., Kansas City 64119
Robichaux, Eugene B., 116 South St., Excelsior Springs 64024
Robinson, Van M., 4124 Vivion Rd., Kansas City 64119
Sanders, George E., 116 South St., Excelsior Springs 64024
Sawyer, Floyd E., 5350 N. Oak St. Trafficway, Kansas City 64118
Schertz, Truman B., 2022 Swift St., N. Kansas City 64116
Slaughter, Carl R., 405 E. 19th Ave., N. Kansas City 64108
Soper, William D., 116 South St., Excelsior Springs 64024
Sportsman, Weldon L., Rt. 2, Smithville 64089
Stratman, Clarence A., 1500 N.E. 57th Terr., Kansas City 64118
Thomas, Thomas C., Westowne Place, Liberty 64068
Triplett, Daniel A., 4124 Vivion Rd., Kansas City 64119
Wald, Donald M., 2800 Hospital Dr., N. Kansas City 64116
Waterman, Franklin M., Liberty 64068
Werner, Dean F., 2025 Swift St., N. Kansas City 64116
Werner, Franklin C., 5140 Antioch Rd., Kansas City 64119
Williams, John M., 32 S. Main St., Liberty 64068
Williams, Robert D., Smithville 64089
Withrow, John B., 5601 Antioch Rd., Kansas City 64119
Wright, Earl J., 3509 E. 67th Terr., North Kansas City 64119

CLINTON COUNTY MEDICAL SOCIETY

Luckenbill, Paul T., Plattsburg 64477
Mabrey, John P., Plattsburg 64477
Ozenberger, Larry A., Plattsburg 64477
Spalding, Wilber B., Plattsburg 64477
Sweiger, James H., Plattsburg 64477

COLE COUNTY MEDICAL SOCIETY
(Jefferson City 65101)

Belden, Edgar A., State Office Bldg.
Bregant, Robert E., 1017 Laurel Dr.
Bruce, James G., Missouri Hotel
Clark, Kendall A., 515 E. High St.
Cooper, Charles W., 423 Cherry St.
Cox, William A., 105 E. High St.
Doyle, Matthew J., 515 E. High St.
Enloe, L. David, 1200 Moreland
Exon, C. Stuart, 515 E. High St.
Fullgrabe, E. A., State Office Bldg.
Garner, Lynn M., State Division of Health
Gentry, Merritt L., 405 Bel Air
Gordon, James S., 515 E. High St.
Guhleman, Henry V., Jr., Medical Arts Bldg.
Gurnee, Landon H., 515 E. High St.
Handler, Fred P., 614 Boonville Rd.
Kelly, Marshall W., 612 E. High St.
Klebba, Larry B., P. O. Box 403
Leslie, J. Paul, 933 Fairmount Blvd.
Leslie, James T., Jr., 213 Jackson St.
Loyd, Earl L., 1448 W. Dunklin St.
McHaney, John W., 606 E. High St.
McKnelly, William V., 507 E. High St.
Mansur, Edward E., R.F.D. 2, Box 629D, Stuart, Fla. 33494
Matthews, John I., 302 Bolivar St.
Maxey, Hugh W., 1238 Elmerine
Meier, Francis X., 1913 Hayselton Dr.
Meinershagen, Charles W., 111 Forest Hill
Melia, Bernard J., Jr., Capt. M. C., DeWitt Army Hospital, Fort Belvoir, Va. 22060
Morgan, Philip E., 226 E. Dunklin
Ossman, Julian A., 2505 W. Main St.
Ringo, Henry J., Centertown 65023
Russell, Joseph P., Division of Health
Ryan, Thomas J., 213 Jackson St.
Sanders, Jack S., 515 E. High St.
Schmidt, J. H., 515 E. High St.
Scott, E. David, 2009 E. McCarty
Sennott, John S., 515 E. High St.
Shull, George D., 521 E. High St.
Stauffer, Harry B., 1312 W. High
Stricker, Harold C., 515 E. High St.
Sugarbaker, Everett D., 503 E. High St.
Summers, Joseph S., Jr., 515 E. High St.
Tanner, Robert H., 1910 Greenberry Rd.
Taylor, Leon A., 129 E. High St.
Tietjen, Frederick O., 213 Jackson St.
Wallace, John K., II, 220 Ridgeway Dr.
Watts, Byron E., 515 E. High St.
Wayland, Thomas A., Box 239, Camdenton 65020
Winegar, Alvon C., 515 E. High St.

COOPER COUNTY MEDICAL SOCIETY
(Boonville 65233)

Abele, William A., 329 Main St.
Avery, Willard B., 329 Main St.
Beckette, Theodore C., 317 Main St.
Boley, James O., 3200 E. Meyer Blvd., Kansas City 64132
Chamberlain, Gilbert L., 570 E. Spring St.
Diekroeger, Manuel L., Route 1
Draper, Bernard, 2400 Meadow Lark Lane, Columbia 65201
Hata, Daikichi, 329 Main St.
Humphreys, Edward T., 329 Main St.
Stuart, Byron M., 329 Main St.
Winn, George W., 329 Main St.

CRAWFORD COUNTY
(Mid-Missouri County Medical Society)

DADE COUNTY
(Dallas-Hickory-Polk-Dade Medical Society)

DALLAS-HICKORY-POLK-DADE COUNTY MEDICAL SOCIETY

Barnett, Charles H., Bolivar 65613
Bauer, Harold A., Lockwood 65682
Brooks, John M., 840 S. Pickwick St., Springfield 65804
Griffin, Evelyn, Buffalo 65622
Griffin, Olin A., Jr., Buffalo 65622
Harrell, Henry J., Rt. 1, Box 263B, Summerfield, Fla. 32691
Kahler, Monte R., Bolivar 65613
Koon, Ben H., Bolivar 65613
McCraw, Doyle C., Bolivar 65613
McNeel, Lee A., Jr., Greenfield 65661
Robinson, George G., Humansville 65674

DAVIESS COUNTY
(Grand River Medical Society)

DEKALB COUNTY
(Grand River Medical Society)

DENT COUNTY
(Mid-Missouri County Medical Society)

DOUGLAS COUNTY
(South Central Counties Medical Society)

DUNKLIN COUNTY MEDICAL SOCIETY

Baldwin, Paul, Kennett 63857
Benson, Leo J., Jr., Kennett 63857
Cash, Charles R., Kennett 63857
Croom, Dorwyn W., Malden 63863
Dunmire, George Q., Kennett 63857
English, Wallace D., Cardwell 63829
Hopkins, Florian G., Gideon 63848
Hunt, John L., Campbell 63933
Legan, John K., Kennett 63857
Miltenberger, Paul C., Kennett 63857
Morehead, William E., Malden 63863
Palenske, Robert L., Hornersville 63855
Peck, Chester R., Jr., Kennett 63857
Pu, Pin H., Kennett 63857
Rutledge, William J., Campbell 63933
Tarver, Quinton, Kennett 63857
Wilson, Loys C., Kennett 63857
Zimmerman, Joe A., Kennett 63857

FRANKLIN-GASCONADE-WARREN COUNTY MEDICAL SOCIETY

Baker, Donald L., Union 63084
Bonney, Samuel C., Washington 63090
Bozzo, Raymond J., Washington 63090
Brenner, Paul A., Owensville 65066
Crawford, Robert M., Sullivan 63080
de la Torre, John J., Sullivan 63080
Denny, Hubert M., Union 63084
Eisenmann, Benjamin P., New Haven 63068
Eyermann, H. Walter, Warrenton 63383
Farrell, S. L., Washington 63090
Giem, Ross N., Sullivan 63080
Hoelscher, Harold F., Warrenton 63383
Long, Robert W., 7336 Huntington, St. Louis 63121
Mays, Frank G., Washington 63090
Mitchell, Thomas J., St. Clair 63077
Moellenhoff, Robert W., Washington 63090
Murney, Joseph A., Washington 63090
Post, John P., Washington 63090
Richardson, George A., Union 63084
Richardson, William R., Union 63084
Royse, Roy P., Sullivan 63080
Ryan, John B., Washington 63090
Schmidt, Charles A., Gerald 63037
Shea, James G., Gerald 63037
Steinbeck, Herbert D., Mamansco Rd., Ridgefield, Conn. 06877
Strehlman, Benjamin G., Union 63084
Workman, George M., Hermann 65041

GASCONADE COUNTY
(Franklin-Gasconade-Warren County Medical Society)

GENTRY COUNTY
(Northwest Missouri Medical Society)

GRAND RIVER MEDICAL SOCIETY
(Caldwell-Carroll-Livingston-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb Counties)

Allen, Erroll W., Carrollton 64633
Atcheson, Windsor B., Trenton 64683

Bales, Eugene L., Carrollton 64633
Bohnsack, Ralph W., Brookfield 64628
Brennan, Raymond J., Chillicothe 64601
Broyles, Watkins A., Bethany 64424
Carter, Howard, Hamilton 64644
Conrad, Joseph, Chillicothe 64601
Cross, Albert D., Trenton 64683
Daley, Frank R., Hamilton 64644
Dixon, John R., Brookfield 64628
Dowell, Donald M., Chillicothe 64601
Dowell, J. Larry, Pattonsburg 64670
Duffy, Oliver F., Trenton 64683
Ellsworth, Willard, Cainsville 64632
Fair, William L., Chillicothe 64601
Fuson, William A., Trenton 64683
Gale, Joseph F., Chillicothe 64601
Gary, George, Marceline 64658
Gearhart, Merriam, Bethany 64424
Gilliland, Charles E., Cameron 64429
Horner, Glennon A., 818 Yale, Columbia 65201
Howell, Billy D., Brookfield 64628
Kimberlin, Herbert C., Trenton 64683
McArtor, Thomas R., Browning 64630
Magill, Joseph S., Milan 63556
Mandler, George, Chillicothe 64601
Nixon, Edward E., Gallatin 64640
Pemberton, Charles W., 1111 Army-Navy Dr., Arlington, Va. 22202
Platz, John H., Carrollton 64633
Smith, Robert W., Marceline 64658
Staton, R. Hamilton, Carrollton 64633
Todd, Paul C., Marceline 64658
Vandiver, Virgil D., Chillicothe 64601
Vinyard, Jack L., Carrollton 64633
Weir, R. S., Bethany 64424
Wilson, Fred K., Winston 64689

GREENE COUNTY MEDICAL SOCIETY
(Springfield)

Allen, Jerry H., 1211 S. Glenstone St., 65804
Allison, James B., 2200 E. Sunshine, Springfield 65804
Anthony, Dallas D., Professional Bldg. 65806
Ash, Charles J., Professional Bldg., 65806
Ashley, Thomas E., 1211 S. Glenstone St. 65804
Atkinson, Thomas E., Jr., 609 E. Cherry St. 65806
Auner, Cecil R., 600 S. Glenstone St. 65802
Back, Donald K., 1211 S. Glenstone St. 65804
Bailey, Alan B., 609 Cherry 65806
Baldwin, Richard, 600 S. Glenstone St. 65802
Barnhill, Floyd R., 600 S. Glenstone 65802
Bentley, John D., 419 Professional Bldg. 65806
Blades, Ross D., 1211 S. Glenstone St. 65804
Blaisdell, Glenn D., 2133 Meadow Dr. 65804
Bonebrake, MacDonald, Professional Bldg. 65806
Broaddus, Loren, 1550 E. Sunshine 65804
Brown, James T., 1653 S. National St. 65804
Brown, Lyman D., 604 Empire Bldg. 65806
Burkey, Jordan W., Professional Bldg. 65806
Burns, Thomas J., 2740 S. Glenstone 65804
Busiek, Erwin F., Professional Bldg. 65806
Busiek, Paul J., Professional Bldg. 65806
Busiek, Urban J., Professional Bldg. 65806
Callaway, Guy D., 1155 S. Delaware St. 65804
Callaway, Guy D., Jr., 1211 S. Glenstone St. 65804
Cheek, J. William, 609 Cherry 65806
Christy, Raymond A., Jr., 1211 S. Glenstone St. 65804
Clarke, Michael J., 609 Cherry 65806
Clary, William F., 1636 S. Glenstone St. 65804
Clawson, James W., Professional Bldg. 65806
Clayton, Edgar L., Professional Bldg. 65806
Cochran, Thomas E., Jr., 2423 Brentwood Blvd. 65804
Coller, Frederick C., 2433 Marlan St. 65802
Conrad, Raymond C., 609 Cherry St. 65806
Cook, James R., 2258 Barataria 65804
Cordonnier, James K., 1550 E. Sunshine 65804
Crawford, Oral B., Professional Bldg. 65806
Cunningham, Darral D., 1715 Boonville Ave. 65803
Dietz, M. Wendell, Burge Protestant Hosp. 65803
Dillard, Erin M., Professional Bldg. 65806
Dills, Joseph N., 1715 Boonville Ave., 65803
Dolan, Daniel L., Professional Bldg. 65806
Duncan, Robert D., 1534 E. Sunshine 65804
Eastwood, Robert A., 3043 Wilshire 65804
Elkins, Ronald F., Professional Bldg. 65806
Ellis, Francis J., Professional Bldg. 65806
Ellis, Harry L., Professional Bldg. 65806
Evans, Ezra L., Jr., 1260 E. Catalpa 65806
Farthing, Fred R., 1234 E. Walnut St. 65802
Farthing, Gene W., 1636 S. Glenstone St. 65804
Ferguson, John L., 1550 E. Sunshine 65804
Ferguson, John P., Jr., 1219 S. Clay St. 65804
Ferrell, Thomas E., Jr., 1550 E. Sunshine Blvd. 65804
Fitch, C. H. Max, 1711 Boonville Ave. 65803
Fogerson, Virginia L., 1125 S. Karla 65804
Francis, William C., 600 S. Glenstone St. 65802
German, Walter A., Jr., 1211 S. Glenstone St. 65802
Giddings, Frank C., Burge Protestant Hosp. 65803
Glenn, Elmer E., 833 East Elm 65806
Glynn, Robert R., 1211 S. Glenstone St. 65802
Gorelick, David F., Professional Bldg. 65806
Gose, Don F., 1550 E. Sunshine 65804
Hall, David W., 2122 Wayland Dr. 65804
Hall, Durward G., 2442 S. Fremont 65804
Hanan, Ernest B., 724 E. Kingsbury 65804
Hanss, Armand W., 3500 Cherry 65804
Harmon, Ben C., 1211 S. Glenstone St. 65804
Harvey, Harold D., 1531 E. Sunshine 65804
H'Doubler, Charles E., Professional Bldg. 65806
H'Doubler, Francis T., Jr., Professional Bldg. 65806
H'Doubler, Peter B., 609 Cherry St., Suite 114 65806
Hogeboom, George W., P. O. Box 1017, Delray Beach, Fla. 33444
Holland, Robert D., 1211 S. Glenstone 65804
Hollis, Richard W., Professional Bldg. 65806
Holmes, Daniel E., 600 S. Glenstone St. 65802
Holmes, David R., 1636 S. Glenstone St. 65804
Hoover, H. Lee, Jr., 1330 E. Walnut St. 65802
Horton, James D., Professional Bldg. 65806
Hulstra, Johannes F. W., 1211 S. Glenstone St. 65804
Ivy, Henry B., 600 S. Glenstone St. 65802
Jameson, James E., Professional Bldg. 65806
Johnson, George A., 229 Professional Bldg. 65806
Johnson, George L., Martin Army Hospital, Ft. Benning, Ga. 31905
Johnson, Warford B., Professional Bldg. 65806
Johnson, William F., Professional Bldg. 65806
Johnston, Joseph L., 2855 Southern Hills Blvd. 65804
Jones, Harold L., 1550 E. Sunshine 65804
Key, James S., Professional Bldg. 65806
Klingner, George M., 1630 N. Jefferson St. 65803
Klingner, George M., Jr., 1630 N. Jefferson 65803
Knabb, Arthur D., 1630 N. Jefferson St. 65803
Knabb, Henry F., Jr., 1630 N. Jefferson St. 65803
Knabb, Kenneth E., 1630 N. Jefferson St. 65803
Kolze, Vernon W., 600 S. Glenstone 65802
Langston, Walter R., Professional Bldg. 65806
Leagus, Charles J., Jr., 1211 S. Glenstone 65804
Leidinger, Karl J., Republic 65738
Lemmon, George B., Prof. Bldg. 65806
Lewis, Noel R., 1423 N. Jefferson Ave. 65803
Litton, Lyle D., Burge Protestant Hosp. 65803
Lockhart, Charles E., Professional Bldg. 65806
Loeb, Richard H., 1211 S. Glenstone 65804
Lorenc, Ernest, Professional Bldg. 65806
Lowe, Horace A., Jr., 114 Professional Bldg. 65806
Lurie, Harold H., 600 S. Glenstone St. 65802
McAlhany, Howard J., 609 Cherry St. 65806
McKinsey, John J., Professional Bldg. 65806
Maddux, William P., Professional Bldg. 65806
Maher, Robert W., Professional Bldg. 65806
Maple, Francis M., 1211 S. Glenstone St. 65804
Menchetti, Don E., 1630 N. Jefferson Ave. 65803
Meyer, Claude B., 4667 Palmer Lane, Rt. 12, 65804
Michael, Harvey R., 1211 S. Glenstone 65804
Milne, Jay L., 609 Cherry St. 65806
Morton, Paul C., 1508 E. Stanford 65804
Moseley, F. Thomas, 609 Cherry St. 65806
Napper, Marvin L., Professional Bldg. 65806
Neu, Leo T., Jr., 3008 Carlisle Circle 65804
Olson, Elbert R., 609 Cherry 65806
Overend, Don S., 1211 S. Glenstone St. 65804
Palcheff, Chris L., 1636 S. Glenstone St. 65804
Park, William I., Jr., Professional Bldg. 65806
Parlato, George S., 107 Professional Bldg. 65806
Penninger, William H., 600 S. Glenstone St. 65802
Peterson, Stanley S., 1211 S. Glenstone St. 65804
Podrecca, Guido I., Professional Bldg. 65806
Polk, John W., 609 Cherry St. 65806
Powell, Edwin M., Professional Bldg. 65806
Prater, Bill G., Professional Bldg. 65806
Pruett, Paul L., Professional Bldg. 65806
Quinn, Paul S., 1423 N. Jefferson 65802
Rainwater, Elmer H., Professional Bldg. 65806
Rigney, Levi M., 505 Woodruff Bldg. 65806
Robinson, Gary L., 609 Cherry 65804
Rosen, Max, Professional Bldg. 65806
Russell, Earl D., 1503 S. Glenstone St. 65804
Sala, Jose M., 1423 N. Jefferson Ave. 65803
Scanlon, Robert C., 1711 Boonville St. 65803
Schaeffer, Edward M., 600 S. Glenstone St. 65802
Schroff, Carle H., 1630 N. Jefferson Ave. 65803
Schwartz, Eugene J., Professional Bldg. 65806
Schweitzer, Fred C., Jr., Woodruff Bldg. 65806
Shackter, Bruce I., 600 S. Glenstone 65802
Shane, Ramon A., 609 Cherry 65806
Siceluff, Joseph G., 609 Cherry St. 65806
Silsby, Don J., Professional Bldg. 65806
Silsby, Harry D., Professional Bldg. 65806
Simpson, Albert P., 318 St. Louis St. 65806
Simpson, Emerson L., 1630 N. Jefferson Ave. 65803
Smith, C. Souter, 931½ Cherry 65804
Snead, William H., Jr., Professional Bldg. 65806
Spalding, David L., Professional Bldg. 65806
Stewart, Robert B., 600 S. Glenstone St. 65802
Stewart, R. Wendell, Professional Bldg. 65806
Stufflebam, Robert E., 2323 E. Rosebrier 65804
Sturtevant, Harwood N., Professional Bldg. 65806
Sundstrom, Frank D., 1211 S. Glenstone St. 65804
Tarrasch, Ernest L., 1636 S. Glenstone St. 65804
Taylor, William E., Southwest Missouri State College 65802
Terry, James F., 609 Cherry 65806
Thomasson, David D., 600 S. Glenstone St. 65802
Tillman, Walter W., Jr., Professional Bldg. 65806
Tombridge, Thomas L., Professional Bldg. 65806
Trotter, W. Yates, 1243 E. Catalpa 65804
Tsang, John L. K., 1636 S. Glenstone St. 65804
Turner, Glenn O., Professional Bldg. 65806
Vail, A. Denton, 1307 E. Catalpa 65804
Vensel, Lee H., 600 S. Glenstone St. 65802
Waddell, Kenneth E., 1211 S. Glenstone St. 65804
Wakeman, J. Newton, 600 S. Glenstone St. 65802
Walker, William M., Professional Bldg. 65806
Warres, Herbert L., 2614 Englewood Rd. 65804
Waterfield, Jim R., 1211 S. Glenstone St. 65804

Webb, Leslie R., Jr., 1243 E. Loren 65804
White, R. Ned, Professional Bldg. 65806
Whitlock, C. Courtney, Professional Bldg. 65806
Williams, John W., 600 S. Glenstone St. 65802
Williams, John W., Jr., 1227 Roanoke St. 65804
Wilson, Roy E., 1211 S. Glenstone St. 65804
Wise, Gordon F., Professional Bldg. 65806
Wittmer, Samuel C., 600 S. Glenstone St. 65802
Wong, George, Jr., 1636 S. Glenstone 65804
Wood, William W., 1211 S. Glenstone St. 65804
Wooldridge, Wilfred E., Professional Bldg. 65806
Wyrsch, Leo M., Jr., 304 Professional Bldg. 65804
Yancey, Daniel L., 1211 S. Glenstone St. 65804
Zahn, Robert L., Professional Bldg. 65806

GRUNDY COUNTY
(Grand River Medical Society)

HARRISON COUNTY
(Grand River Medical Society)

HENRY COUNTY MEDICAL SOCIETY

Bradshaw, William D., Clinton 64735
Hollingsworth, Ray S., Clinton 64735
Hughes, Shelby B., Clinton 64735
Jones, Edna M., Clinton 64735
King, Richard H., Clinton 64735
Smith, James O., Clinton 64735
Smith, William J., Windsor 65360
Walker, George S., Clinton 64735
Walker, Hugh B., Clinton 64735

HICKORY COUNTY
(Dallas-Hickory-Polk-Dade County Medical Society)

HOLT COUNTY
(Northwest Missouri Medical Society)

HOWARD COUNTY MEDICAL SOCIETY

Bloom, W. A., Fayette 65248
Dean, Francis D., Fayette 65248
Leech, Maurice P., Fayette 65248
Marshall, William G., Glasgow 65254
Shaw, William J., Fayette 65248
Shaw, William J., Jr., Fayette 65248

HOWELL COUNTY
(South Central Counties Medical Society)

IRON COUNTY
(Mineral Area County Medical Society)

JACKSON COUNTY MEDICAL SOCIETY
(Kansas City)

Aaron, George A., 10901 Winner Rd., Independence 64052
Abrams, Bernard M., 4949 Rockhill Rd. 64110
Adelman, Arthur, 601 E. 63rd St. 64110
Adler, Federico, 601 E. 63rd St. 64110
Agee, Loren G., 11201 Colorado 64137
Aks, Daniel, 751 E. 63rd St. 64110
Alberg, Marvin R., One Penn Valley Park 64141
Alderman, Thomas F., 7540 Troost 64131
Allebach, H. K., 6400 Prospect 64132
Allen, Robert E., 4320 Wornall Rd. 64111
Allen, William B., 4620 Nichols Parkway 64112
Alsop, Webb S., Jr., 3604 W. 53rd St., Shawnee Mission, Kan. 66205
Altomare, Edward P., 2610 E. 63rd St. 64130
Altringer, Arthur N., 5630 Mission Dr., Shawnee Mission, Kan. 66208
Ambler, Carl D., Wornall Rd. at 44th St. 64111
Ammatelli, Francis J., 7546 Troost St. 64131
Amoury, Raymond A., 1710 Independence Ave. 64106
Anderson, Raymond B., 1710 Independence Ave. 64106
Anderson, Richard W., 1001 Romany Rd. 64113
Andrews, Berneil W., 4320 Wornall Rd. 64111
Andrus, Bailey C., 4320 Wornall Rd. 64111
Angles, Luis E., 701 E. 63rd St. 64110
Arbab, Ali A., 751 E. 63rd 64110
Arms, Arnold V., 4320 Wornall Rd. 64111
Arnold, John D., 24th & Cherry Sts. 64108
Aschman, Theodore H., Plaza Time Bldg. 64112
Asher, A. Graham, 4706 Broadway 64112
Atcheson, Bellefield, 11123 Locust St. 64131
Atwell, Floyd C., 4620 Nichols Parkway 64112
Averill, Keith H., 2316 E. Meyer Blvd. 64132
Baer, Alvin J., 751 E. 63rd St. 64110
Baker, Philip J., 11440 E. 47th St. 64133
Ball, David A., 4320 Wornall Rd. 64111
Ballard, V. Bryce, 4320 Wornall Rd. 64111
Bare, Chester L., Jr., 10501 E. 78th Terr. 64138
Barelli, Pat A., 4177 Broadway 64111
Barloon, James H., 9406 E. 63rd St. 64133
Barnard, John L., Jr., 4320 Wornall Rd. 64111
Barnett, Gordon P., 6568 High Dr., Shawnee Mission, Kan. 66208
Barry, Gerald W., 1948 E. Parvin Rd. 64116
Barry, William B., 4320 Wornall Rd. 64111
Basantz, Fernando V., 7951 State Line 64114
Bass, Walter R., 9503 E. 63rd St. 64133
Baum, Frank E., 701 E. 63rd St. 64110
Baumhardt, Edward E., 4320 Wornall Rd. 64111
Bay, Merrill R., 1808 W. Main St., Blue Springs 64015
Beatty, Arch J., 1816 E. 63rd 64130
Beatty, Nina D., 24th & Cherry Sts. 64108
Beck, Calvin E., 4320 Wornall Rd. 64111
Becker, Richard R., 5622 Holmes St. 64110
Becker, Rolfe A., 601 E. 63rd St. 64110
Bell, William F., 615 W. 3rd St., Lee's Summit 64063
Bence, Jackson, Jr., 4426 Penn 64111
Bennett, James D., 6700 Troost 64131
Benoit, Hector W., Jr., 4620 Nichols Parkway 64112
Benson, William F., 4320 Wornall Rd. 64111
Berenson, Sheldon E., 4620 Nichols Parkway 64112
Bergmann, Victor H., 105 Ward Parkway 64112
Bernreiter Michael, 1246 W. 63rd St. 64113
Berry, Guy N., 4320 Wornall Rd. 64111
Berry, Maxwell G., 4320 Wornall Rd. 64111
Bickley, James E., 4620 Nichols Pkwy. 64112
Biggs, Alfred D., 6400 Prospect Ave. 64132
Biggs, Harry L., 63rd & Evanston 64133
Bikales, Victor W., 751 E. 63rd St. 64110
Bills, Marvin L., Plaza Time Bldg. 64112
Black, Don A., 6400 Prospect Ave. 64132
Black, Eugene C., Professional Bldg. 64106
Black, Thomas C., Jr., 601 E. 63rd 64110
Blim, Richard D., 4320 Wornall Rd. 64111
Bordy, Marvin D., 601 E. 63rd St. 64110
Borenstine, Joseph, 601 E. 63rd St. 64110
Bortnick, Eugene, 751 East 63rd St. 64110
Botwin, Arnold E., 751 E. 63rd 64110
Boughnou, Harvey P., 315 Nichols Rd. 64112
Bourke, Timothy S., 4620 Nichols Pkwy. 64112
Boutros, Amin, 3112 Linwood Blvd. 64128
Bowser, John F., 411 Nichols Rd. 64112
Boyd, George K., 5111 Independence Ave. 64124
Boyer, Philip A., Jr., P. O. Box 9627 64134
Boylan, Peter C., 6307 Morningside Dr. 64113
Braby, Howard H., 1612 W. Truman Rd., Independence 64050
Bradford, John F., 4320 Wornall Rd. 64111
Brady, Arthur M., 3039 Brooklyn 64130
Brams, Jack B., 601 E. 63rd St. 64110
Braverman, Abe E., 8300 Troost 64131
Brock, Bernard, 31st & Wyandotte 64108
Brown, Adrian J., 12 E. 63rd St. 64113
Brown, Elwyn S., 1710 Independence Ave. 64106
Brown, Irwin S., 4320 Wornall Rd. 64111
Brown, Menzie H., 425 E. 63rd St. 64110
Brown, Robert S., 4706 Broadway 64112
Brumm, Lawrence W., 6400 Prospect 64132
Bruner, Robert E., 14909 Little Blue Rd. 64136
Brust, Carl H., 6114 Howe Dr., Mission, Kan. 66205
Bryan, William H., Jr., 3939 Prospect Ave. 64130
Bryant, T. J., 701 E. 63rd St. 64110
Buckingham, William W., 3560 Broadway 64111
Buckner, Robert C., Plaza Parkway Bldg. 64112
Budke, Harold A., 306 E. 12th St. 64106
Buhler, Victor B., 5212 Belleview Ave., 64112
Buie, Bruce R., 11201 Colorado 64137
Bunting, Williston P., 305 W. 43rd St. 64111
Burch, Buford H., 6700 Troost 64131
Burns, Beryl I., 1510 Bass Ave., Columbia 65201
Burry, Virgil F., 1710 Independence 64106
Butcher, Robert W., 7924 Paseo Blvd. 64131
Butterworth, Nelson S., 725 W. 49th Terr., Kansas City 64112
Byers, Philip L., 4320 Wornall Rd. 64111
Caffrey, Raymond J., 1314 W. Red Bridge 64114
Caldwell, John K., 6700 Troost 64131
Calovich, Emery R., 4620 Nichols Parkway 64112
Campbell, Frederick B., 315 Nichols Rd. 64112
Capps, Eugene C., 6700 Troost 64131
Carlson, Hjalmar E., Professional Bldg. 64106
Carmichael, Francis A., Jr., 4320 Wornall Rd. 64111
Caruso, Alfred A., 4526 Paseo Blvd. 64110
Casady, Gilbert N., 6700 Troost 64131
Case, William F., 11201 Colorado 64137
Casebolt, Buford T., 415 E. 63rd 64110
Castelaw, Rush E., 3731 Locust St. 64109
Cavaness, Ernest W., 1010 Neptune Dr., Encinitas, Calif. 92024
Centner, Paul J., 2727 Main St. 64108
Chambers, James Q., Jr., 4620 Nichols Parkway 64112
Chandler, Robert A., 4177 Broadway 64111
Chapman, David W., 10901 Winner Rd., Independence 64052
Chapman, James H., 24th & Cherry 64108
Chapman, Samuel B., 4718 W. 65th Terr., Shawnee Mission, Kan. 66208
Cheng, Alfred K., P. O. Box 2193, APO, New York 09825
Chernoff, Selbert G., 4601 Independence Ave. 64124
Childs, Donnalea S., 4320 Wornall Rd. 64111
Childs, Richard M., 4320 Wornall Rd. 64111
Clark, Irving H., 5801 E. 113th St. 64134
Clasen, Arthur C., 5101 Collins Ave., Miami Beach, Fla. 33140
Cline, Merle A., 4126 St. John Ave. 64123
Cobb, James R., 6741 Prospect Ave. 64132
Coburn, Donald F., 6400 Prospect Ave. 64132
Cochrane, Joseph J., 4706 Broadway 64112
Cockerell, Sanford F., 11200 Winner Rd., Independence 64052
Coffey, Ralph R., Professional Bldg. 64106
Coffin, Theodore A., Professional Bldg. 64106
Cohen, Harry K., 751 E. 63rd St. 64110
Cokingtin, Leovigildo, 10901 Winner Rd., Independence 64052
Colglazier, Mary C., 411 Nichols Rd. 64112
Colom, George A., 6700 Troost 64131
Comer, J. Russell, U. S. Naval Hospital, Beaufort, S. C. 29902
Connell, Evan S., Commerce Bldg. 64106
Cooper, Charles S., 6700 Troost 64131
Cooper, John H., Argyle Bldg. 64106
Cooper, Leo F., 6700 Troost 64131
Cortner, Mary C., 6700 Troost 64131
Courter, Larry P., 6400 Prospect Ave. 64132
Cowherd, Joseph B., 634 W. 69th Terr. 64113
Cox, Kenneth E., 4320 Wornall Rd. 64111
Cox, William L., 1465 Spruce Ave., Liberty 64068
Cramer, Quentin, 3615 W. 83rd, Shawnee Mission, Kan. 66208
Crocker, Albert M., 3319A East 43rd St. 64130
Crockett, James E., 4320 Wornall Rd. 64111
Crow, Martin L., 4177 Broadway 64111
Culbertson, William F., 1253 Huntington Rd. 64113
Curiel, Manuel S., 751 E. 63rd St. 64110
Curran, Desmond, Federal Reserve Bank Bldg. 64106
Curts, Calvin J., 4320 Wornall Rd. 64111
Cutcliff, Daniel J., 1103 Grand 64106
Dalton, Timothy T., 6400 Prospect 64132
Dann, David S., 701 E. 63rd St. 64110
Davidson, Kendrick C., 701 E. 63rd St. 64110
Davis, Donald R., 4320 Wornall Rd. 64111

Davis, Herbert V., 4620 Nichols Parkway 64112
Davis, Jack M., 6700 Troost 64131
Davis, John J., 9011 Delmar Blvd., Overland Park, Kan. 66207
Davis, Kenneth A., 315 Nichols Rd. 64112
Davis, Richard E., 4643 Wyandotte St. 64112
Davis, Robert C., 659 W. 61st Terr. 64113
Decker, Albert I., 1735 Baltimore 64108
DeMaria, Peter F., 8125 E. Gregory Blvd. 64133
DeMott, John D., 411 Nichols Rd. 64112
DeMotte, John A., 315 Nichols Rd. 64112
Dempsey, Herbert A., 615 W. 3rd St., Lee's Summit 64063
Dennie, Charles C., 2600 Verona Rd., Shawnee Mission, Kan. 66208
Devins, George S., 12 Doctors Bldg. E., 701 E. 63rd St. 64110
Diveley, Rex L., 4320 Wornall Rd. 64111
Dixon, Vewiser L., 2208 E. 18th St. 64127
Dlabal, Luke J., 1210 Ash Ave., Independence 64052
Doane, William L., Grandview 64030
Dodge, Mark, 4320 Wornall Rd. 64111
Dodge, Milton, 2005 W. 71st Terr., Shawnee Mission, Kan. 66208
Doering, Robert W., 6400 Prospect Ave. 64132
Dolezal, Joseph B., Bryant Bldg. 64106
Dorsch, Ervin H., 11200 Winner Road, Independence 64052
Dovenmuehle, Robert H., 24th and Cherry 64108
Downey, James W., 425 E. 63rd St. 64110
Drake, Roy F., 6700 Troost 64131
Draney, Thomas E., 6700 Troost 64131
Dreher, Richard L., 1710 Independence Ave. 64106
Drisko, Robert M., 4620 Nichols Parkway 64112
Drowns, Bruce V., 4320 Wornall Rd. 64111
Duer, Mildred C., 310 W. 47th St. 64112
Duncan, William H., 911 Main St. 64105
Dunleavy, James D., 4620 Nichols Parkway 64112
Durnell, Monaford D., 615 W. Third St., Lee's Summit 64063
Dwyer, Frank X., 4620 Nichols Parkway 64112
Dwyer, Hugh L., 8379 Somerset Dr., Shawnee Mission, Kan. 66207
Eanet, Morton P., 415 E. 63rd 64110
Edde, Clifford G., Argyle Bldg. 64106
Eisemann, Gustave, 601 E. 63rd St. 64110
Elias, David J., 9306 E. New 40 Highway, Independence 64050
Elliott, Raymond G., Bryant Bldg. 64106
Elliott, Wade E., 710 W. 12th St. 64105
Elser, Otto H., 10901 Winner Rd., Independence 64052
Engel, Lawrence P., 315 Nichols Rd. 64112
Engelking, David F., 9507 E. 63rd St. 64133
Engelmann, Calvin E., 4706 Broadway 64112
Eshelman, Albert D., Blue Ridge Cutoff & New 40 Hwy., Independence 64050
Eubank, David F., 9406 E. 63rd 64133
Eubank, Dillard M., 9406 E. 63rd St. 64133
Eubank, William R., 6700 Troost 64131
Eubank, William Y., 6400 Prospect 64132
Evans, Lawrence L., Little Blue, Lee's Summit Rd. 64139
Farley, Claude C., 6400 Prospect 64132
Farney, Jacob P., 6700 Troost 64131
Farnham, Milo M., 1612 W. Truman Rd., Independence 64050
Farnsworth, Jesse J., 1103 Grand Ave. 64106
Feierabend, Frank L., 2727 Main St. 64108
Feist, George V., 7924 Paseo 64131
Ferguson, Donald S., 2012 E. 24th St. 64127
Ferris, Carl R., 6400 Prospect 64132
Finkle, Robert H., 10901 Winner Rd., Independence 64052
Fitzgerald, Robert H., 6400 Prospect 64132
Flanders, Virgil E., Professional Bldg. 64106
Flatley, John A., 6700 Troost 64131
Fleming, Royall B., 1433 E. 19th St. 64108
Florian, Albert J., Tucson House No. 1325, Tucson, Ariz. 85705
Flynn, James M., Meyer & Prospect 64132
Folck, William P., 911 Main St. 64105
Forman, Louis H., 4320 Wornall Rd. 64111
Forsythe, Robert W., 4320 Wornall Rd. 64111
Fouts, Dallas B., Sr., 3624 S. Harris, Independence 64052
Fowler, Fred D., 4320 Wornall Rd. 64111
Fowler, James W., 6700 Troost 64131
Franco, Pilar Juan, 600 E. 22nd 64108
Franklin, Curtis U., 2415 Park Ave. 64127
Freedman, Aaron D., 4949 Roekhill Rd. 64110
Frick, John P., 116 Huntington Rd. 64113
Friedman, Morris L., 601 E. 63rd St. 64110
Fritzlen, Thomas J., 825 W. 63rd St. 64113
Fuhrman, Donald L., 4320 Wornall Rd. 64111
Fulton, Albert E., 310 W. 47th St. 64112
Fury, Tex E., 642 Huntington Rd. 64113
Gainey, Harold L., 4320 Wornall Rd. 64111
Gaitonde, Mangesh R., 4643 Wyandotte, Suite 203, 64112
Galbreath, Ashford M., Professional Bldg. 64106
Ganley, William C., Argyle Bldg. 64106
Gard, Raymond F., 10901 Winner Rd., Independence 64052
Garner, G. Josephine, 4643 Wyandotte 64112
Garrison, Roy F., 6400 Prospect 64132
Gaskins, John H., 4320 Wornall Rd. 64111
Geha, Braham J., 7546 Troost Ave. 64131
Geiger, William A., Jr., 3001 Wyandotte St. 64108
Gempel, Paul A., 5322 Falmouth Rd., Shawnee Mission, Kan. 66205
Gentry, Enoch N., Jr., Telephone Bldg. 64106
Gibson, David M., St. Luke's Hosp. 64111
Gilkey, Harry M., 4941 Westwood Rd. 64112
Gillen, Billy A., 31st & Wyandotte Sts. 64108
Ginardi, Donald E., 4643 Wyandotte St. 64112
Ginsberg, Norman A., 751 E. 63rd St. 64110
Gist, William W., 9406 E. 63rd 64133
Glasscock, Ernest L., 411 Nichols Rd. 64112
Goldman, Stanley L., 7546 Troost Ave. 64131
Goldsich, Edward, 315 Nichols Rd. 64112
Goldstein, Marvin F., 415 E. 63rd St. 64110
Goodman, Leroy, 2119 W. 70th Terr., Shawnee Mission, Kan. 66208
Goodson, William H., Jr., 1103 Grand Ave. 64106
Goolsbee, Robert L., 6700 Troost 64131
Gordon, Morris P., 8300 Troost 64131
Gottsch, Joseph C., 411 Nichols Rd. 64112
Grabske, Charles F., 10901 Winner Rd., Independence 64052
Grabske, Charles F., Jr., 10612 E. 18th, Suite #1, Independence 64052
Graham, James W., 5731 Troost 64110
Graham, Patrick G., 4320 Wornall Rd. 64111
Graham, Wallace H., 1815 E. 63rd St. 64130
Green, J. Richard, 10901 Winner Rd., Independence 64052
Green, Stanley L., 1248 McCoy, Independence 64050
Greene, W. Wallace, 4620 Nichols Parkway 64112
Gregory, Ralph W., 4620 Nichols Parkway 64112
Griffin, Donald R., 4915 W. 64th Terr., Shawnee Mission, Kan. 66208
Griffith, John A., Jr., 4320 Wornall Rd. 64111
Growdon, John A., 6508 Aberdeen Rd., Shawnee Mission, Kan. 66208
Guastello, Mario J., ENT Dept. Naval Hosp., Portsmouth, Va. 23708
Gullett, Charles C., Med. Dept., 1735 Baltimore Blvd. 64108
Gundle, Sigmund, 751 E. 63rd St. 64110
Gunn, Richard W., Professional Bldg. 64106
Habib, Henry N., 2300 Holmes St. 64108
Haffner, Joel J., 600 E. 22nd 64108
Hagar, David L., 9406 E. 63rd St. 64133
Haggan, Margaret E., 1321 E. 18th Terr., Lawrence, Kan. 66044
Haight, John M., 3401 E. 12th Blvd. 64127
Haith, Edward E., 751 E. 63rd St. 64110
Haith, Walter F., 2701 E. 31st St. 64128
Hall, Ralph R., St. Luke's Hosp. 64111
Hall, Thomas B., P. O. Box 16, Arrow Rock 65320
Halperin, Phillip H., 601 E. 63rd St. 64110
Hamel, Herbert A., 6306 Morningside Dr. 64113
Hamill, Robert W., 4320 Wornall Rd. 64111
Hamtil, Lawrence W., 4320 Wornall Rd. 64111
Hanes, Lee D., 37-A Swayzee Dr., Latham, N. Y. 12110
Hanes, Robert L., 6700 Troost 64131
Hannas, Ralston R., Jr., 1278 W. 59th St. 64113
Hardacre, Ruth A., 3300 Charlotte St. 64109
Hardy, Henry M., 6606 Overhill Rd., Shawnee Mission, Kan. 66208
Hardy, John W., Professional Bldg. 64106
Harless, Morris S., 4320 Wornall Rd. 64111
Harlow, Lloyd M., 2462 Brooklyn St. 64127
Harned, Bert W., 2826 Main St. 64108
Harrin, William R., 4320 Wornall Rd. 64111
Harris, Boyd L., National Navy Medical Center, Bethesda, Md. 20014
Hart, Lawrence W., 4643 Wyandotte St. 64112
Hartwig, Frederiek H., 6400 Prospeet 64132
Hartwig, Raymond W., 3110 Tomahawk, Shawnee Mission, Kan. 66208
Hash, Helen E., 807 W. 69th St. 64113
Hashinger, Edward H., 7884 Lookout Dr., La Jolla, Calif. 92037
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Haynes, Solon E., 2727 Main St. 64108
Hazen, Robert M., 6400 Prospect 64132
Heilman, Edward J., 6700 Troost 64131
Hellerstein, Stanley, 1710 Independence Ave. 64106
Helman, Richard G., 7721 State Line 64114
Henry, Clarke L., 4320 Wornall Rd., 64111
Herman, Edwin M., 4949 Rockhill Rd. 64110
Herrman, George V., 4545 Wornall Rd. 64111
Hibbard, Blaine Z., 4320 Wornall Rd. 64111
Hickerson, William H., 604 W. Maple Ave., Independence 64050
Hill, Jack H., Trinity Lutheran Hosp. 64108
Hink, Frederick W., 10229 Independence Rd., Independence 64054
Hirsch, Joe E., 4643 Wyandotte St. 64112
Hoadley, William D., 6400 Prospect 64132
Hodgson, Frank H., 4301 Main St. 64111
Hoech, George P., Jr., 6400 Prospect 64132
Hoeper, Samuel D., 12921 Grandview Rd., Grandview 64030
Hoffman, Jacob S., 751 E. 63rd St. 64110
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Hollinger, Lloyd A., 6700 Troost 64131
Hollweg, Kenneth C., 4320 Wornall Rd. 64111
Holt, Waldo S., 4620 Nichols Parkway 64112
Holton, Edward B., 10901 Winner Rd., Independence 64052
Hook, Waller C., 10010 El Monte, Shawnee Mission, Kan. 66207
Hopkins, James P., 6700 Troost 64131
Hornstra, Robijn K., 600 E. 22nd St. 64108
Hungate, Carroll P., Professional Bldg. 64106
Hunt, Thomas R., 6400 Prospect 64132
Hunter, Martin P., 4706 Broadway 64112
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Hurwitt, Frank, 214 E. Armour, 64111
Hyde, Lawrence L., 5020 W. 67th St., Shawnee Mission, Kan. 66208
Ingham, Walton C., 4320 Wornall Rd. 64111
Irvine, John W., 9503 E. 63rd St. 64133
Irwig, Fred, Professional Bldg. 64106
Ise, Frank H., 6400 Prospect 64132
Jackson, Haywood R., 3317 E. 43rd St. 64130
Jacob, Walter P., 601 E. 63rd St. 64110
Jacobs, Morton, 6314 Brookside Plaza 64113
Jacobs, Walter H., 601 E. 63rd St. 64110
James, Otis E., Jr., 6306 Morningside Dr. 64113
Jansen, Robert, 101 E. 63rd St. 64113
Jenab, Morteza, 6700 Troost 64131
Jennett, J. Harvey, Professional Bldg. 64106
Johnson, C. Laurence, Professional Bldg. 64106
Johnson, Dallas A., 6700 Troost 64131
Johnson, Edgar W. Jr., 6700 Troost 64131
Johnson, James S., 4301 Cleveland 64130
Johnson, Joseph E., 11201 Colorado 64137
Johnson, Morris B., 5801 E. 113th, Hickman Mills 64134

Constitution and By-Laws

of the

Missouri State Medical Association

Adopted 1903

1969 Revision

515 EAST HIGH ST. JEFFERSON CITY, MO. 65101

Constitution

ARTICLE I. NAME OF THE ASSOCIATION

The name and title of this organization shall be the Missouri State Medical Association.

ARTICLE II. PURPOSE

The purpose of this Association is the promotion of the science and art of medicine, the protection of public health, the betterment of the medical profession, and, by uniting with similar organizations in other states and territories of the United States, to form the American Medical Association.

ARTICLE III. MEMBERSHIP

Membership in this Association shall be limited to and include all members in good standing in component societies which hold charters from this Association.

ARTICLE IV. HOUSE OF DELEGATES

The House of Delegates shall be the legislative body of this Association and shall consist of delegates elected by the component societies. It shall elect a Speaker and Vice Speaker from its body. Its Secretary shall be the Secretary of the Missouri State Medical Association.

ARTICLE V. COUNCIL

The Council shall be the executive body of this Association when the House of Delegates is not in session. It shall be the judicial body of the Association when matters are referred to it for decision by the Association, by component societies or by individual members thereof. It shall consist of the President, President-Elect, Immediate Past-President, Secretary, Treasurer and the duly elected Councilors from each Councilor District. Nine members shall constitute a quorum.

ARTICLE VI. SESSIONS AND MEETINGS

Section 1. The Association shall hold an Annual Session at a place fixed by the House of Delegates, the time of which shall be fixed by the Council.

Sec. 2. Special meetings of the Association or of the House of Delegates may be called by a two thirds vote of the Council and shall be called upon a petition signed by members equal in number to one third of the total number of delegates certified for the last Annual Session.

ARTICLE VII. OFFICERS

Section 1. The officers of this Association shall be a President, a President-Elect, three Vice Presidents, a Secretary, a Treasurer, a Speaker and a Vice Speaker of the House of Delegates and ten Councilors selected as provided for.

Sec. 2. All officers except Councilors shall be elected annually. The terms of Councilors shall be two years. Half of the membership of the Council shall be elected each year. The Secretary and the Treasurer shall be elected by the Council. The delegates present from each Councilor District shall meet prior to the last day of the Annual Session and elect the Councilor from that district. In the event of death, resignation or removal of any Councilor, the Council may appoint a successor to serve until the vacancy is filled at the next Annual Session. All of the officers shall serve until their successors are elected and installed.

ARTICLE VIII. FUNDS, EXPENSES AND BUDGET

Funds shall be raised by a per capita assessment on each component society. The amount of the assessment shall be fixed by the House of Delegates. Funds may also be raised in any other manner approved by the House of Delegates. The Council shall submit an annual budget to the House of Delegates. All resolutions providing for appropriations shall be referred to the Council and all appropriations approved by the Council shall be included in the annual budget.

ARTICLE IX. REFERENDUM

At any General Meeting of the Association it may, by a two thirds vote, order a general referendum upon any question pending before the House of Delegates. The House of Delegates may, by a vote of its members, submit any question to the membership of the Association for its vote. A majority vote of all members of the Association shall determine the question.

ARTICLE X. SEAL

The Association shall have a common seal. The power to change or renew the seal shall rest with the House of Delegates.

ARTICLE XI. AMENDMENTS

The House of Delegates may amend any article of this Constitution by a two thirds vote of the delegates present and voting at any Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session and that it shall have been published twice during the year in the Journal of this Association or sent officially to each component society at least two months prior to the meeting at which final action is to be taken.

By-Laws

Chapter I. Membership

Section 1. Members of this Association shall be physicians whose names have been certified by secretaries of component societies to the Secretary of this Association that they are duly elected members of a component society and are legally qualified physicians practicing in Missouri except as otherwise provided. Each member must be a citizen of the United States, of good moral and professional standing, and must not support, nor practice, nor claim to practice any exclusive system of medicine.

Sec. 2. No person who is under sentence of suspension or expulsion from any component society of this Association or whose name has been dropped from its roll of members shall be entitled to any of the rights or benefits of this Association.

Sec. 3. There shall be three classes of members as follow:

Active members shall be limited to those members of component societies who (1) hold the degree of Doctor of Medicine or Bachelor of Medicine, and (2) are entitled to exercise the rights of active membership in their component societies, as determined by their component societies, subject to the provisions of these By-laws.

Junior members shall be limited to those members of component societies (1) who are serving a full time internship or residency in a hospital approved by the Council on Medical Education of A.M.A., (2) and they shall continue as junior members for the first three years subsequent to the completion of accredited service.

Honor members shall be limited to Honor members of component societies, which societies have requested that active members who have reached advanced years and have long served the Association and the profession be made Honor members of the Association. They shall enjoy all the privileges of active membership and shall be exempt from the payment of dues.

Sec. 4. **Associate members** shall be limited to persons not provided for in the various classes of membership who are engaged in the pursuit of a medical or allied science, and by action of the component societies, become Associate members of the Association. This shall include physicians who meet medical examiners' qualifications but have not received their citizenship, these Associate members to apply for Active membership within one year after citizenship is granted. Associate members shall have the right to attend scientific sessions and such other privileges as may be extended to them by the House of Delegates. They shall not be eligible to vote and shall be exempt from the payment of dues.

Chapter II. General Meetings

Section 1. The General Meetings shall be open to all registered members and guests.

Sec. 2. Any paper read before this Association shall be considered for publication in the Journal if the Author so desires. Such papers may be given publication priority over regularly submitted papers but shall be subject to the same editorial review and selection policies.

Sec. 3. No person in the active practice of medicine in the State of Missouri shall appear on the program of the Association unless he or she is a member of the Missouri State Medical Association or an affiliated association or organization.

Chapter III. House of Delegates

Section 1. The House of Delegates shall meet annually at the time and place of the Annual Session. It shall remain in continuous session on the first day of the Annual Session and complete the work coming before it at that session. It shall meet on the last day of the Annual Session to receive the report of the Nominating Committee and complete unfinished business and the election of officers. No new business shall be introduced at the last session without the unanimous consent of the delegates.

Sec. 2. Each component county society shall be entitled to send each year one delegate or one alternate to the House of Delegates for each fifty full paid members or fraction thereof in the Association on December 31 of the previous year, plus one additional delegate or alternate for each one hundred members or a major fraction thereof; provided, however, that each component society which is composed of two or more county societies shall be entitled to at least one delegate from each of the counties of which it is composed; however, such delegates must reside or practice in the county they represent. Alternate delegates may be elected from the entire membership of the component medical societies.

Sec. 3. Forty delegates shall constitute a quorum of the House of Delegates. All meetings of the House of Delegates shall be open to members of the Association.

Sec. 4. From among members of the House of Delegates the Speaker shall appoint reference committees to which reports and resolutions, on a majority vote of the House of Delegates, shall be referred as follows:

Reference Committee on Amendments to the Constitution and By-laws.

Reference Committee on Resolutions.

Reference Committee on Miscellaneous Affairs.

Reference Committee on Medical Education and Public Welfare.

Reference Committee on Reports of Officers.

The Speaker may appoint such other reference committees as he may deem necessary, upon approval of the House of Delegates.

The President shall appoint a Committee on Credentials.

Sec. 5. The House of Delegates shall elect delegates and alternates to the House of Delegates of the American Medical Association in accordance with the Constitution and By-laws of that body.

Sec. 6. The House of Delegates shall divide the state into Councilor Districts specifying what counties each district shall include and, when the best interest of the Association and the profession will be promoted thereby, organize in each a district medical society of which all members of the component county societies shall be members.

Sec. 7. The House of Delegates shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates. Such committees shall report to the House of Delegates and may be present and participate in the debate on their reports.

Sec. 8. The House of Delegates shall receive and act upon a complete and detailed annual audit of receipts and expenses of the preceding year and a proposed budget for the current calendar year which shall have been prepared by the Council and submitted to the component county societies at least four weeks prior to the Annual Session. These shall be published in the Journal.

Sec. 9. The following shall be the general order of business of the House of Delegates for the first meeting of the session:

1. Call to order by the Speaker.
2. Report of the Committee on Credentials.
3. Roll call.
4. Reading and adoption of minutes.
5. Report of officers.
6. Report of committees.
7. Unfinished business.
8. New business.

The following shall be the general order of business of the House of Delegates for the last meeting of the session:

1. Call to order by the Speaker.
2. Report of the Committee on Credentials.
3. Roll call.
4. Reading and adoption of minutes.
5. Report of the Nominating Committee.
6. Election of officers.
7. Reports of officers.
8. Reports of committees.
9. Unfinished business.
10. New business (see Sec. 1, Chap. III).
11. Installation of officers.
12. President's appointments and installation of members to committees.
13. Selection of the place for the next Annual Session.

At any meeting of the House of Delegates, the order of business may be changed by a two thirds affirmative vote of the members present and voting.

CHAPTER IV. ELECTION OF OFFICERS

Section 1. The President on the first day of the Annual Session shall select a Committee on Nominations consisting of ten delegates, no two of whom shall be from the same Councilor District. The Committee on Nominations shall report the result of its deliberations to the House of Delegates in the form of a ticket containing the name of one member for each of the offices listed in Article VII of the Constitution which are to be filled at that Annual Session excepting the President-Elect who shall be nominated from the floor of the House of Delegates.

Sec. 2. All elections of officers shall be by acclamation unless ballot is called for. A majority of the votes cast shall be necessary to elect except for delegates and alternates to the American Medical Association, who shall be elected as follows:

In case no delegates or alternates for the American Medical Association receive on the first ballot a majority of the votes, the nominees shall be declared elected in the order of the highest number of votes received until the allotted number shall have been chosen. In case of a tie vote for delegate or alternate, the tie shall be determined by lot.

In case no nominee for general offices of the Association (see Article VII, Constitution) receives a majority of the votes on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken. This procedure shall be continued until one of the nominees receives a majority of all the votes cast, when he shall be declared elected.

Sec. 3. Nothing in this chapter shall be construed to prevent additional nominations being made from the floor by members of the House of Delegates.

Sec. 4. Delegates present at the Annual Session from Councilor Districts whose Councilors' terms expire shall hold meetings on or before the morning of the last day of the Annual Session and elect a Councilor for their District for a term of two years. The name of the elected Councilor shall be given on a prescribed form to the Secretary for presentation to the House of Delegates. Each candidate for Councilor must reside or practice in the district for which he is elected.

Sec. 5. The Speaker and Vice Speaker shall not serve more than three consecutive terms.

Sec. 6. The Speaker shall appoint a parliamentarian to serve as such during the session of the House of Delegates at each Annual Session and upon whom the Speaker may call before deciding points of order or procedure.

CHAPTER V. DUTIES OF OFFICERS

Section 1. The **President,** or his designated representative, shall preside at all scientific sessions of the Association. He shall preside at the House of Delegates in the absence of the Speaker or Vice Speaker and until their successors are elected. He shall appoint all committees not otherwise provided for. He shall deliver an annual address at such time as may be arranged and shall perform such other duties as custom or parliamentary usage requires. He shall be the real head of the profession of the state and assist the Councilors in building up the county societies and in making their work more practical and useful.

Sec. 2. The **President** and the **President-Elect** shall be members of the Council and shall attend all meetings of the Council. Should the office of President-Elect become vacant through death or otherwise the Council may fill the vacancy until the next Annual Session of the Association.

Sec. 3. The **Vice Presidents** shall assist the President in the discharge of his duties. In the event of the death, resignation or removal of the President the Council shall select one of the Vice Presidents to serve the unexpired term.

Sec. 4. The **Treasurer** shall give bond in the sum of $20,000. He shall demand and receive all funds due the Association, together with bequests and donations. He shall pay money out of the treasury only on a written order of the President, countersigned by the Secretary; he shall subject his accounts to such examination as the House of Delegates may order, and he shall annually render an account of his actions and of the state of the funds in his hands.

Sec. 5. The **Secretary** shall attend the General Meetings of the Association and the meetings of the House of Delegates, and shall keep minutes of their respective proceedings in separate record books. He shall be Secretary of the Council and shall keep a record of its proceedings. He shall be custodian of all record books and papers belonging to the Association, except such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the Association which come into his hands. He shall provide for the registration of the members and delegates at the Annual Session. He shall, with the cooperation of the secretaries of the component societies, keep a card index register of all the legal practitioners of the state by counties, noting on each his status in relation to his county society, and shall transmit a copy of this list to the American Medical Association, transmitting to its Secretary each month a report containing the names of new members and the names of those dropped from the membership roster during the preceding month. He shall conduct the official correspondence, notifying members of meetings, officers of their election and committees of their appointment and duties. He shall employ such assistants as may be ordered by the Council and shall make an annual report to the House of Delegates. He shall supply all component societies with the necessary blanks for making their reports and shall collect from them the regular per capita dues and assessments and turn the same over to the Treasurer. The amount of his salary shall be fixed by the Council.

CHAPTER VI. COUNCIL

Section 1. The Council shall meet during the Annual Session at such times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. It shall meet on the last day of the Annual Session to organize. The Council shall elect a Chairman and a Vice Chairman for a term of one year. The Chairman may be reelected to serve not more than four consecutive terms of one year each. The Council shall, through its Chairman, make an annual report to the House of Delegates.

Sec. 2. Each Councilor shall be organizer, peacemaker and censor for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exists, for inquiring into the condition of the profession, and to keep in touch with the activities of and to aid in the betterment of the component societies of his district. He shall make reports of his work and the condition of the profession of each county in his district to the Council. The necessary traveling expenses incurred by each Councilor in the line of duties herein imposed may be allowed on a proper itemized statement submitted monthly and within the current year, but this shall not include his expense in attending the Annual Session of the Association. No Councilor shall be eligible for the position of Delegate to the House of Delegates during his term of office as Councilor, nor shall he vote in the House of Delegates.

Sec. 3. The Council shall be the executive body of the House of Delegates and between sessions shall exercise the power conferred on the House of Delegates by the Constitution and By-laws.

Sec. 4. The District Councilor together with two members of component societies within the Council District, selected by the Councilor, shall serve as a Board to hear and by a majority vote adjudicate any questions involving the right and standing of members, either in relation to other members or to component societies or to the Association, and all matters of discipline affecting the conduct of members of component societies, or other matters.

The Council shall be the appellate Board of Censors of the Association. It shall hear and adjudicate all matters on appeal from the decision of the Councilor Board; it shall hear and adjudicate matters of an ethical nature brought before the House of Delegates or the general meeting which shall be referred to the Council without discussion. On original decision or appellate determination, its decision shall be final unless appealed to the then convened meeting or the next meeting of the House of Delegates.

Sec. 5. Charters shall be issued to county societies only on approval of the Council, and shall be signed by the President and Secretary of this Association. Upon the recommendation of the Council, the House of Delegates may revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and By-laws.

Sec. 6. In sparsely settled sections the Council shall have authority to organize the physicians of two or more counties into societies, to be suitably designed so as to distinguish them from district societies, and these societies, when organized and chartered, shall be entitled to all rights and privileges provided for component societies until such counties shall be organized separately.

Sec. 7. The Council shall provide for and supervise the issuance of all publications of the Association including proceedings, transactions and memoirs, and shall have authority to appoint an Editor and such assistants as it deems necessary. It shall prescribe the methods of accounting and through a committee of three of its members, to be known as a Committee on Auditing and Appropriations, shall audit all accounts of this Association. The Council shall adopt an annual budget providing for the necessary expenses of the Association for the following calendar year. This budget shall be prepared and presented for consideration in the last quarter of each year by the Committee on Auditing and Appropriations. A complete and detailed report shall be submitted to the component county medical societies as provided in Section 8, Chapter III. The Council shall submit an annual report of the House of Delegates which shall specify the character and cost of the publications of the Association, the amount and character of all its property, and shall provide full information concerning the management of all affairs of the Association which the Council is charged to administer.

Sec. 8. The Council shall appoint at least six months before the Annual Session, a committee consisting of three of its members to be known as the Committee on Arrangements for the Annual Session. On recommendation of the Committee, the Council shall appoint a general chairman of a Local Committee on Arrangements, who shall be a member of the component society of the county in which the Annual Session is to be held, and who shall appoint and organize from the members of this county society the personnel of the Local Committee on Arrangements. The Local Committee on Arrangements shall provide suitable meeting places and shall have general charge of all local arrangements subject to the approval of the Committee on Arrangements for the Annual Session. All receipts and disbursements related to the Annual Session shall be handled by the Committee on Arrangements on recommendations of the Committee on Budget and Appropriations.

Sec. 9. The Council shall by appointment fill any vacancy in office not otherwise provided for which may occur during the interval between Annual Sessions of the House of Delegates; the appointee shall serve until his successor has been elected and has qualified.

Sec. 10. The salaries of all employees of the Association shall be fixed by the Council.

Sec. 11. The Council shall provide such headquarters for the Association as may be required to conduct its business properly.

Sec. 12. The Council shall be empowered to elect an Executive Secretary and Assistant Executive Secretary and such other personnel as may be necessary, who need not be members of the Missouri

State Medical Association, each of whom shall perform such duties as the Council may designate and receive such salary and serve for such periods and under such conditions as the Council may determine.

CHAPTER VII. COMMITTEES

Section 1. The Committees of the Association shall be standing committees and special committees.

Sec. 2. The standing committees, unless otherwise provided in these By-laws, shall consist of five members serving three year terms and shall be:

A Committee on Scientific and Postgraduate Work.
A Committee on Publication.
A Committee on Medical Defense.
A Committee on Medical Education and Hospitals.
A Committee on Medical Economics.
A Committee on Cancer.
A Committee on Maternal Welfare.
A Committee on Infant and Child Care.
A Committee on Mental Health.
A Committee on Constitution and By-laws.
A Committee on Control of Venereal Disease.
A Committee on Trauma.
A Committee on Eye Health.
A Committee on Diabetes Mellitus.
A Committee on Anesthesiology.
A Committee on Laboratory Medicine.
A Committee on Disaster Medical Care and National Defense.
A Committee on Physical Medicine and Rehabilitation.
A Committee on Aging.
A Committee on Radiology and Ionizing Radiation.
A Committee on Public Service.
A Committee on Legislative Matters.
A Committee on Interspecialty Medicine.

The Committee on **Scientific and Postgraduate Work** shall consist of three members, of which the Secretary shall be one, and shall determine the character and scope of the scientific proceedings of the Association for each Annual Session subject to the instructions of the House of Delegates. The Committee shall provide speakers for district society meetings as requested.

The Committee on **Publication** shall be appointed annually by the Council and shall be responsible for general publication and distribution policies of the Journal. The Editor of the Journal shall be designated by the Council and shall also serve as chairman of the Committee on Publication. The Editor shall be empowered to nominate an Editorial Board, consisting of members of the Association and subject to approval by the Council. The members of the Editorial Board will assist the Editor in soliciting, preparing and reviewing material for publication of the Journal.

The Committee on **Medical Defense** shall, upon request accompanied by complete history of the case and copy of plaintiff's petition if filed, advise and aid any member in good standing who has had filed against him individually a civil malpractice suit and may recommend assistance in defraying costs to an amount not to exceed $300.00. The Association shall not be obligated to pay, nor shall it pay, either in whole or in part, any sum agreed upon in compromise, nor any judgment or part thereof, nor shall it pay any of the costs of taking depositions nor any court costs. No member shall be entitled to this defense should the charge of malpractice be brought jointly against him and a hospital or sanatorium in which he is, or at the time of the alleged malpractice, was financially interested.

The Committee on **Medical Education and Hospitals** shall serve in the state for the Council on Medical Education and Hospitals of the American Medical Association and shall have referred to it all questions pertaining to hospitals and medical education.

The Committee on **Medical Economics** shall investigate matters affecting the economic status of medicine and shall report annually to the House of Delegates such recommendations as may, in its judgment, seem proper.

The Committee on **Cancer** shall investigate the facilities provided for the care of the cancer sufferer and for the study of cancer in the State of Missouri and shall cooperate with the American Society for the Control of Cancer and other ethical organizations for cancer control to the end that authentie information in regard to diagnosis and treatment of cancer be properly disseminated throughout the State of Missouri.

The Committee on **Maternal Welfare** shall keep in touch with and investigate matters concerning maternal and child welfare. It shall carry on activities in the field of maternal and child welfare and in cooperation with the Committee on Scientific and Postgraduate Work and the Division of Child Hygiene of the State Division of Health shall conduct postgraduate courses for the profession and disseminate information of an educational nature.

The Committee on **Infant and Child Care** shall consist of ten members, one from each of the ten Councilor Districts, appointed annually by the President. The Committee shall concern itself with the betterment of infant and child care and shall be a liaison with the Bureau of Child Hygiene of the State Division of Health. The Committee shall study and make recommendations regarding various public, private and parochial school health programs in this state.

The Committee on **Mental Health** shall be composed of ten members not all of whom are specialists in psychiatry and shall engage in the promotion of good mental health, the prevention of mental ill health and lend its support toward securing cooperation of all state or governmental agencies in obtaining better treatment of the mentally ill. It shall cooperate with the Committee on Mental Health of the American Medical Association and with the Division of Mental Diseases of the State of Missouri.

The Committee on **Constitution and By-laws** shall propose such amendments to the Constitution and By-laws as are deemed wise and expedient, and bring before the House of Delegates such amendments as it or other members of the Association may present for consideration.

The Committee on **Control of Venereal Disease** shall review the available information on the venereal disease problem, assemble additional information concerning the nature and extent of the facilities which now exist for the diagnosis, recommend such supplemental and new state or local facilities and measures as seem desirable in dealing with these infections and to cooperate fully with the State Division of Health and the United States Public Health Service in carrying out such venereal disease programs as have been or may in the future be established.

The Committee on **Trauma** shall disseminate information regarding the current and approved methods of handling trauma and stimulate interest therein, such information to be disseminated to licensed practitioners of medicine and to lay groups approved by the Committee. It shall correlate its programs with those of the Committee on Scientific and Postgraduate Work. The chairman of the Committee shall have the right to appoint three junior members to work under his direction.

The Committee on **Eye Health** shall promote and maintain an educational program in each Councilor District, before medical and lay audiences, relative to ocular hygiene, conservation of eyesight and prevention of blindness. It shall correlate its program with that of the Committee on Scientific and Postgraduate Work and the local, state and national associations or societies for the prevention of blindness. The Committee may have associate members as the Committee may deem advisable.

The Committee on **Diabetes Mellitus** shall keep in touch with and investigate matters concerned with diabetes mellitus and carry out such activities as may be deemed appropriate.

The Committee on **Anesthesiology** shall study matters concerned with anesthesiology and carry out such activities as may be deemed appropriate.

The Committee on **Laboratory Medicine** shall study all matters pertaining to pathology including the following subdivisions: postmortem pathology, surgical pathology, exfoliative cytology, medical bacteriology, parasitology, virology, mycology, serology, hematology, chemistry, toxicology, clinical microscopy and blood banking. On the basis of such studies, the Committee shall report annually to the House of Delegates and to the Council whenever necessary and shall make such recommendations as may in its judgment seem proper.

The Committee on **Disaster Medical Care and National Defense** shall consist of ten members of the Association, appointed annually by the President, one from each of the ten Councilor Districts, and in addition, any other members who are interested in the medical aspects of disaster medical care and national defense. The Committee shall concern itself with the development of disaster medical care and national defense operations in the state and shall cooperate with public officials and private organizations in the furtherance of disaster medical care and national defense activities.

The Committee on **Physical Medicine and Rehabilitation** shall consider matters concerned with physical medicine and with rehabilitation, including vocational rehabilitation.

The Committee on **Aging** shall consider matters concerned with the problem of our aging population in relation to health care.

The Committee on **Radiology and Ionizing Radiation** shall consider matters concerned with radiology and ionizing radiation and shall disseminate information regarding the use of radiology and ionizing radiation to physicians and other interested groups in this state.

The Committee on **Public Service** shall concern itself with promoting good relations between the profession and the public, and to act to represent the Association in matters of public affairs. It shall cooperate with similar committees of the county medical societies in order to disseminate information to the public regarding the science and art of medicine and the protection of public health.

The Committee on **Legislative Matters** shall consist of five members of the Association, appointed annually by the President. The Committee shall consider legislative matters affecting the practice of medicine and public health and shall make recommendations to the Council and the House of Delegates.

The Committee on **Interspecialty Medicine** shall be composed of one representative from the presently formed statewide specialty groups listed herein and others which may be formed in the future: Missouri Ophthalmological Society; Missouri Pathological Society; Missouri Academy of General Practice; Missouri Radiological Society; Missouri Society of Internal Medicine; Missouri Surgical Society; Missouri Society of Anesthesiologists, Inc.; Missouri Academy of Psychiatry; Missouri Chapter, American College of Chest Physicians; Missouri Chapter, American Academy of Pediatrics.

The President of the Missouri State Medical Association shall appoint annually to this committee a representative from each group after consultation and recommendation by each group. This committee shall be charged with the responsibility of reviewing organizational problems with respect to scientific programs, socio-economic and legislative matters that affect their particular specialties and other subjects of interest. Reports from this committee shall be made periodically to the Council as well as to the House of Delegates.

Sec. 3. Special committees may be appointed by the President or the Council as circumstances may demand.

Sec. 4. Associate members of standing committees may be appointed when deemed advisable. The term of such members shall be for one year.

CHAPTER VIII. DUES AND ASSESSMENTS

Section 1. (a) The annual dues of this Association shall be $65.00, which shall be applicable to each active member of the Association beginning in 1970 and shall be levied per capita on the active members of the component societies; the per capita levy for junior members shall be one half of the per capita levy for active members; honor and associate members shall not be required to pay dues. Dues shall be payable on January 1 of the year for which they are levied.

(b) An assessment of $10.00 per year on each active member of the Association and $5.00 per year on each junior member shall be applicable for a three-year period beginning in 1969. The assessment shall be payable with the dues of the Association, and the monies collected therefrom shall be remitted to the Missouri State Medical Foundation.

Sec. 2. Three dollars of the annual dues shall be credited to the account of the Journal for each member's annual subscription. The remainder of the amount shall be credited to the general fund of the Association.

Sec. 3. The House of Delegates may, when in its judgment the best interest of the Association demands, recommend an assessment on each active member. Such assessment shall be levied only by consent of two thirds of the members of the House of Delegates present and voting. Funds obtained from such special assessments shall be allocated only for the purposes for which such assessment is levied and in accordance with substantiating budgets. Unexpended balances from such assessments must be reported to the House of Delegates for re-allocation.

Sec. 4. The secretary of each component society shall cause to be collected and remitted to the Treasurer of this Association the per capita levies. Any member whose name has not been reported for enrollment and whose dues have not been remitted to the Treasurer of this Association on or before March 1 shall stand suspended until his name is properly reported and his dues for the current year are paid. On December 31 of each year, members delinquent in payment of dues, and assessment if such has been made, or any part thereof shall, ipso facto, forfeit their memberships. No suspended member shall be eligible to register at an annual session.

CHAPTER IX. RULES OF CONDUCT

The ethical principles governing the members of the American Medical Association shall govern members of this Association.

CHAPTER X. RULES OF ORDER

The deliberations of this Association shall be conducted in accordance with parliamentary usage as defined in *Robert's Rules of Order.*

CHAPTER XI. COUNTY SOCIETIES

Section 1. All county societies now in affiliation with the State Association or those that may hereafter be organized in this state, which have adopted principles of organization not in conflict with this Constitution and By-laws shall, upon application to the Council, receive charters from this Association, provided that their Constitutions and By-laws shall have been submitted to the Council and received its approval.

Sec. 2. Only one component medical society shall be chartered in each county.

Sec. 3. Each county society shall judge of the qualifications of its members, subject to review and final decision by the Council of the State Association. Every reputable and legally qualified physician who does not practice, nor profess to practice sectarian medicine, and who resides or practices in the same county, who shall apply for membership on the prescribed form and subscribe for the Journal and pay the annual dues and assessments for the current year, shall be eligible for election to membership.

A member of a component society whose license has been revoked shall be dropped from membership automatically as of the date of revocation. The Council of the State Association shall have final authority to expel a member should a component county society fail to do so after being so requested by the Council.

The Council may upon request of a component society remit the state dues and assessment of a member who has become totally and permanently incapacitated through mental or physical disability and has been a member in good standing during the three consecutive years immediately preceding his disability; provided, that the component society shall remit the county society dues of such member.

The Council may, upon request of a component society, remit the state dues and assessments of a deserving member, found to fall within what is classified as a hardship case, during the period of said hardship until such time as the dues again become payable; provided that the component society shall remit the county society dues of such member.

The Council may, upon the request of a component society, waive the dues of any member in good standing for such a period as the member is serving in the Armed Forces of the United States of America, or similar service with any of the allies of the United States, and for six months thereafter.

A physician living near a county line may hold his membership in that county most convenient for him to attend, on permission of the component society in whose jurisdiction he resides.

Sec. 4. Any physician who may feel aggrieved by the action of the society of his county in suspending or expelling him shall have the right to appeal to the Council whose decision shall be final. A county society shall at all times be permitted to appeal or refer questions involving membership to the Council of the State Association for final determination.

Sec. 5. In hearing appeals the Council may admit oral or written evidence or both as in its judgment will most fairly present the facts.

Sec. 6. When a member in good standing in a component county society moves to another county in this state, he shall be given a written certificate of these facts by the secretary of his society, without cost, for transmission to the secretary of the society in the county to which he moves. Pending his acceptance or rejection by the society in the county to which he moves such member shall be considered to be in good standing in the county society from which he was certified and in the State Association to the end of the period for which his dues have been paid.

A member of a component society who moves to and engages in the practice of medicine at a location in another county in which there is a component society shall forfeit his membership in this Association and the Secretary shall remove his name from the roster of members of the Missouri State Medical Association unless within one year after such change of residence he becomes a member of the component society in the county to which he has moved.

Sec. 7. Each county society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county. Systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it includes every eligible physician in the county.

Sec. 8. At some meeting in advance of the Annual Session of this Association, each component county society shall elect one or more delegates and an equal number of alternates therefor to represent it in the House of Delegates of this Association, in accordance with Chapter III, Section 2 of these By-laws. The secretary of each county society shall send a list of such delegates and alternates to the Secretary of this Association at least sixty days before the Annual Session. Representation in the House of Delegates shall be contingent on compliance with the foregoing provisions.

Sec. 9. The secretary of each county society shall keep a roster of its members and, if practicable, a list of non-affiliated physicians, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary by the Council. He shall send a copy of the program of each meeting to his district councilor and to the Secretary of the State Association.

Sec. 10. Any county component society, in a manner approved by the State Association, or the State Association with the consent of the county society or societies affected, may undertake, organize and put into effect plans for the medical care of indigent persons or indigent groups, and low income groups, by agreements with physicians, public officials or others and by the use of contributions, cooperative funds or other means; provided, however, that a free choice of the available and participating physicians in that territory shall be allowed to the patient and that all relationships, legal or otherwise, between the physician and the patient shall be and remain as though it were strictly an individual employment.

Chapter XII. Amendments

Section 1. These By-laws may be amended at any Annual Session by a two thirds vote of the delegates present and voting at that session, if the proposed amendment has been properly submitted to the House of Delegates and has laid on the table for one day.

Sec. 2. Upon the adoption of this Constitution and these By-laws all previous constitutions and by-laws are thereby repealed.

Johnson, Thomas M., 4620 Nichols 64112
Johnson, William A., 2200 Prospect 64127
Johnstone, Paul N., Bryant Bldg. 64106
Jonas, Harry S., Jr., 2116 S. Sterling Ave. Independence 64052
Jones, Gale O., 6400 Prospect 64132
Jones, Marion E., 2462 Brooklyn St. 64127
Jones, Samuel T., III, 4620 Nichols Parkway 64112
Jones, T. Reid, 411 Nichols Rd. 64112
Justus, John B., Plaza Parkway Bldg. 64112
Kahn, Marvin, 4709 W. 81st St., Prairie Village, Kan. 66208
Kanarek, Joseph, 601 E. 63rd St. 64110
Kandt, Ray E., Jr., 6700 Troost 64131
Kantor, Julius M., 601 E. 63rd 64110
Kantor, Samuel, 6700 Troost 64131
Kartus, Irving, 9120 Ward Parkway Terr. 64114
Katf, Nicola Y., 600 E. 22nd 64108
Katz, Milton, 4620 Nichols Parkway 64112
Kaufmann, Herbert H., 701 E. 63rd St. 64110
Kaul, Philip G., 4320 Wornall Rd., 64111
Kay, Billy F., St. Luke's Hospital, Wornall Rd. at 44th St. 64111
Kealhofer, George C., 6627 Prospect Ave. 64132
Keeler, James E., 4320 Wornall Rd. 64111
Keitges, Pierre W., 4949 Rockhill Rd. 64110
Kelling, Douglas G., 6817 E. 37th 64129
Kelly, Eugene H., The Baptist Home, Ironton 63650
Kendall, Charles A., 4240 Blue Ridge Blvd. 64133
Kennard, George K., 4320 Wornall Rd. 64111
Kent, Bela K., 701 E. 63rd St. 64110
Kernodle, Jefferson D., Box 2778 64142
Ketcham, William M., 4550 Warwick Blvd. 64111
Ketterman, Grace H., 225 W. 43rd St. 64111
Ketterman, Herbert L., 11201 Colorado 64137
Kettner, Edward G., 1102 Grand Ave. 64106
Kienberger, Paul A., 10605 E. 35th Terr., Independence 64052
Kiene, Richard H., 4320 Wornall Rd. 64111
Kimball, Merritt H., 610 E. 36th St., 64109
Kimble, Harvey S., 4620 Nichols Pkwy. 64112
Kindred, Lynn H., 4949 Rockhill Rd. 46110
King, J. Tenbrook, 4320 Wornall Rd. 64111
King, Walter R., Professional Bldg. 64106
Kingsbury, Helen, 6415 Sagamore Rd., Shawnee Mission, Kan. 66208
Kirk, Robert V., 6400 Prospect 64132
Kiser, David M., 6700 Troost 64112
Kitchen, William M., 425 E. 63rd 64110
Klein, Edward H., Plaza Medical Bldg. 64112
Knight, John S., 305 W. 43rd St. 64111
Knight, Lyle B., 108 Madison, Lee's Summit 64063
Knoch, H. Kermit, Plaza Parkway Bldg. 64112
Koehler, Charles A., 5920 Nall Ave., Shawnee Mission, Kan. 66208
Koontz, Paul G., 4320 Wornall Rd. 64111
Korth, William M., 6300 Midnight Pass Rd., Villa 16, Siesta Key, Sarasota, Fla. 33581
Kraft, Jacob, 6700 Troost 64131
Kranson, Seymour J., 11200 Winner Rd., Independence 64052
Krueger, Haven C., 4320 Wornall Rd. 64111
Kuhn, William F., II, 6247 Brookside Blvd. 64113
Kyger, John E., 3612 Blue Ridge, Independence 64052
Kyner, Thomas A., Wirthman Bldg. 64109
Lally, James J., 4620 Nichols Parkway 64112
Lamar, Robert F., Professional Bldg. 64106
Lambert, L. Marian, 10928 Hillcrest Rd. 64134
Lambie, Rodger W., 701 E. 63rd St. 64110
Lampton, Lawrence M., 24th and Cherry 64108
Landis, George K., Professional Bldg. 64106
Lanning, Richard J., 4320 Wornall Rd. 64111
Lapi, Angelo, 2012 Stratford Rd., Shawnee Mission, Kan. 66208
Lapp, Harry C., 751 E. 63rd St. 64110
Latham, Raymond W., 4620 Nichols Parkway 64112
Lauer, Daniel J., 4320 Wornall Rd. 64111
Layle, John K., Jr., 4320 Wornall Rd. 64111
Layton, Ira C., 6400 Prospect 64132
Lee, Henry A., 6700 Troost 64131
Lehner, Richard L., Professional Bldg. 64106
Leifer, William W., 701 E. 63rd St. 64110
Leitch, Cecil G., 808 S. 15th St., Blue Springs 64015
Leitz, Frank B., 308 W. 116th 64114
Lentz, Clark H., BMA Tower 64141
Leo, William A., 6400 Prospect 64132
Leong, James T., 1622 N. Highland Dr., Independence 64057
Levey, Harry B., 601 E. 63rd St. 64110
Lewis, Revis C., 1103 Grand 64106
Lichtor, Alexander, 751 E. 63rd St. 64110
Lichtor, Joseph M., 601 E. 63rd St. 64110
Lieberman, B. Albert, Jr., 4620 Nichols Parkway 64112
Lilly, Terry E., Jr., 1815 E. 63rd St. 64130
Lindgren, Carleton J., 4240 Blue Ridge Blvd., Kansas City 64133
Lindquist, Carl N., 106 W. 14th St. 64105
Link, Vance E., 1201 W. 36th St., Independence 64050
Linville, Howard E., 6700 Troost 64131
Littlejohn, Robert T., Professional Bldg. 64106
Lloyd, Ivan E., 1 Penn Valley Park 64141
Lohrentz, Lois H., 2800 W. 50th Terr., Shawnee Mission, Kan. 66205
Long, R. Stacy, 6400 Prospect 64132
Loutzenhiser, James K., 4643 Wyandotte St. 64112
Lowell, Paul, 4742 Liberty St. 64112
Lowrey, Ford J., 106 W. 96th St. 64114
Lyddon, Harold R., Jr., 75th & Troost 64131
Lytton, George J., 4706 Broadway 64112
McAfee, R. Gordon, 6400 Prospect 64132
McCalla, John P., 649 Huntington Rd., 64113
McCanse, Andrew, 4320 Wornall Rd. 64111
McClanahan, Robert C., 1102 Grand Ave. 64106
McConchie, James E., 10901 Winner Rd. Independence 64052
McCoy, Frederick J., 4177 Broadway 64111
McCray, Glen M., 1710 Independence Ave. 64106
McCubbin, Clarence R., 8612 Meadow La., Leawood, Kan. 66206
McCullough, Campbell C., Argyle Bldg. 64106
McDonald, V. G., Jr., 1710 Independence Ave. 64106
McDonnell, John F., 4320 Wornall Rd. 64111
McFarland, H. Richard, 4320 Wornall Rd. 64111
McFarland, M. Donald, 4320 Wornall Rd. 64111
McGannon, Paul T., 6400 Prospect 64132
McGuire, Thomas H., 429 W. 58th St. 64113
McIntosh, Donald E., 6400 Prospect 64132
McIntyre, John D., 7707 Pennsylvania 64114
McKee, Wallace P., 4320 Wornall Rd. 64111
McKnelly, William V., Jr., 4801 E. Linwood Blvd. 64128
McLeod, John, 9 E. 67th St. 64113
McMillan, Thomas E., 6400 Prospect 64132
McNutt, Theodore L., 11201 Colorado 64137
McVay, James R., V.F.W. Bldg. 64111
McVay, James R., Jr., V.F.W. Bldg. 64111
McWherter, Lottie B., 4314 Pearl, Kansas City, Kan. 66103
Maben, Sam Edward, 9406 E. 63rd 64133
MacCubbin, Don A., 4320 Wornall Rd. 64111
MacInnis, Florence E., 4620 Nichols Parkway 64112
MacNaughton, Ralph E., St. Joseph's Hosp. 64128
MacNaughton, Robert A., 3208 W. 101st St., Leawood, Kan. 66206
Mangels, Kenneth A., 1212 W. Truman Rd., Independence 64050
Mantz, Frank A., 4949 Rockhill Rd. 64110
Marks, Mark M., 751 E. 63rd St. 64110
Marsh, Alice, Pleasant Hill 64080
Marshall, Cameron F., 5510 Belinder Rd., Shawnee Mission, Kan. 66205
Marshall, Hal E., 4949 Rockhill Rd. 64110
Martin, Clyde V., 415 E. 63rd St. 64110
Martin, Daniel C., 24th & Cherry Sts., 64108
Mason, Wayne E., 6700 Troost 64131
Masterson, Byron J., 4620 Nichols Parkway 64112
Masucci, Joseph M., Argyle Bldg. 64106
Mathewson, Hugh S., 4620 Nichols Parkway 64112
Maxwell, John A., 39th & Rainbow, Kansas City, Kan. 66103
Mayer, John H., Jr., Plaza Parkway Bldg., 64112
Medlicott, William J., 4320 Wornall Rd. 64111
Meegan, Robert J., 425 E. 63rd St. 64110
Melgaard, S. Ross, 6601 Rockhill Rd. 64131
Meriwether, Don R., 5109 W. 60th Terr., Mission, Kan. 66205
Metzl, Kurt, 601 E. 63rd 64110
Meyer, Paul W., 4320 Wornall Rd. 64111
Meyers, Harold L., 601 E. 63rd St. 64110
Miles, George O., 4320 Wornall Rd. 64111
Miller, Clint L., 615 W. 3rd St., Lee's Summit 64063
Miller, Gerald L., 4706 Broadway 64112
Miller, Max I., 4001 W. 66th St., Shawnee Mission, Kan. 66208
Miller, Wilson H., 4620 Nichols Parkway 64112
Mitchell, Andrew D., 4320 Wornall Rd. 64111
Mitchell, Robert H., Bryant Bldg. 64106
Mitra, Nirmal K., 112th Terr. & Grandview Rd. 64134
Mixson, William C., 4320 Wornall Rd. 64111
Montello, Samuel A., 4620 Nichols Parkway 64112
Montgomery, James G., 310 W. 49th St. 64112
Mooney, Justin L., Bryant Bldg. 64106
Mooney, Marcel L., 751 E. 63rd St. 64110
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Morley, Louise A., 4907 Neosho, Shawnee Mission, Kan. 66205
Morris, Joseph H., Jr., 4240 Blue Ridge Blvd. 64133
Morrison, Donald H., 2510 Linwood Blvd. 64128
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Mosser, Robert S., 4240 Blue Ridge Blvd. 64133
Mount, Allan, 1509 W. Truman Rd., Independence 64050
Muehlberger, James L., 6700 Toost 64131
Mueller, Martin J., 6400 Prospect 64132
Mullen, Leo M., 4443 Paseo Blvd. 64110
Multhauf, Cyril J., 306 E. 12th St. 64106
Mundy, William L., 4635 Wyandotte St. 64112
Murphy, James J., Research Hospital and Medical Center 64132
Murphy, Robert J., 4320 Wornall Rd. 64111
Murray, W. Lee, 11201 Colorado 64137
Muth, Robert G., 24th & Cherry Sts. 64108
Myers, John S., 618 Professional Bldg. 64106
Myers, Robert M., 906 Grand Ave. 64106
Naime, Mansour J., 6700 Troost 64131
Needels, Orval T., 207 W. 67th Terr. 64113
Nelson, Bentley A., 305 W. 43rd St. 64111
Nesselrode, John H., 10901 Winner Rd., Independence 64052
Newman, Robert L., 6700 Troost 64131
Nickson, Charles E., Jr., 10901 Winner Rd., Independence 64052
Nicolay, Kenneth S., 4320 Wornall Rd. 64111
Nigro, E. Robert, 415 W. 55th St. 64113
Nigro, Joseph A., 1055 W. 55th St. 64113
Noback, Richardson K., 24th & Cherry Sts. 64108
Noltensmeyer, Milton N., 3305 W. 50th Terr., Shawnee Mission, Kan. 66208
Novak, Edward J., 3011 Baltimore 64108
Nunn, Pat M., 3418 Karnes Blvd. 64111
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O'Malley, James F., 6700 Troost 64131
O'Neil, James H., 425 E. 63rd St. 64110
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Ost, Mark D., 16 W. 115th St. 64115
Overesch, Harry B., 6400 Prospect 64132
Owens, Graham J., 4117 Broadway 64111
Owens, James L., 920 W. 47th 64112
Owens, Richard L., 9228 E. Highway 50 64133
Owens, Robert H., 6700 Troost 64131

Ozar, Milton B., 6700 Troost 64131
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Parelman, Allen G., 601 E. 63rd St. 64110
Parker, Hubert M., Argyle Bldg. 64106
Parsons, Eugene O., 145th & State Line, Stilwell, Kan. 66085
Passman, Harold, 601 E. 63rd 64110
Payne, William B., 6400 Prospect 64132
Pearson, Paul E., 31st and Wyandotte 64108
Peete, Don C., Professional Bldg. 64106
Penner, Stanley, 601 E. 63rd St. 64110
Pentecost, Richard L., 2200 McCoy St. 64108
Perll, Maurice F., 6700 Troost 64131
Perll, Rita D., 830 W. 61st Terr. 64113
Perry, Ralph, 6400 Prospect 64132
Petersen, A. Gene, 3700 W. 83rd St., Prairie Village, Kan. 66208
Petersen, Gerald D., 3700 W. 83rd St., Prairie Village, Kan. 66208
Peterson, Bonita J., 31st and Wyandotte Sts. 64108
Peterson, Carl M., 2701 E. 31st St. 64128
Peterson, George L., 4806 W. 68th St., Shawnee Mission, Kan. 66208
Peterson, Milton C., 6400 Prospect 64132
Peterson, Walter R., 2701 E. 31st St. 64128
Petitt, Robert M., 4320 Wornall Rd. 64111
Petry, Ezra L., 701 E. 63rd St. 64110
Pfuetze, Edwin L., Plaza Parkway Bldg. 64112
Pickard, Nicholas S., 6210 High Dr., Shawnee Mission, Kan. 66208
Pickens, Edgar E., U. S. Grant Hotel, San Diego, Calif. 92101
Pierron, John B., 6516 Linden Rd. 64113
Pinsker, Oscar T., 751 E. 63rd St. 64110
Piper, Donald K., 6700 Troost 64131
Pipkin, Garrett F., Argyle Bldg. 64106
Pitts, Ronald L., 11201 Colorado 64137
Polk, George M., 12112 E. 52nd Terr. 64133
Pollock, Leo H., 751 E. 63rd St. 64110
Pope, Charles H., Jr., 1509 W. Truman Rd., Independence 64050
Porter, Louis, 751 E. 63rd St. 64110
Potter, Lee G., 6904 Valley Rd. 64113
Potts, Donald A., 110 E. 23rd St., Independence 64050
Powell, Nelson E., Wornall Rd. & 44th 64111
Powers, John M., 3838 Blue Ridge Blvd., Independence 64052
Preston, Albert, Jr., 4320 Wornall Rd. 64111
Printz, Joseph H., 601 E. 63rd St. 64110
Printz, Otto J., 601 E. 63rd St. 64110
Pucci, Gregory L., 411 Nichols Rd. 64112
Pugh, Richard G., 1612 W. Truman Rd., Independence 64050
Puls, Jerry L., 39th & Rainbow Blvd. 64103
Quer, Erich A., 6400 Prospect 64132
Quistgard, Paul C., Star Route, Box 62, Hollister 65672
Rader, Ada B., 13414 Locust St. 64145
Raich, Robert A., 4320 Wornall Rd. 64111
Ramey, Ehret O., 4635 Wyandotte St., 64112
Ramos, John F., Jr., 2849 Indiana 64128
Rannie, Paul R., 709 S. Fuller St., Independence 64052
Ratzlaff, Neal S., 4949 Rockhill Rd. 64110
Rector, Joe L., Jr., St. Luke's Hosp. 64111
Reinhardt, George R., 6400 Prospect 64132
Reister, Dorothy D., 5201 W. 84th, Shawnee Mission, Kan. 66207
Reister, Philip D., 1815 E. 63rd St. 64130
Reitz, Carl H., 7329 Broadway 64114
Reynolds, Clarence C., 3842 E. 63rd Terr. 64130
Rhoades, Arthur B., Professional Bldg. 64106
Richardson, Marion W., 2526 Prospect 64127
Riley, Joseph P., Jr., Parthenon, Ark. 72666
Riller, Lowell E., Professional Bldg. 64106
Rippey, John H., Meyer Blvd. & Prospect 64132
Roberts, Grosvenor G., 6700 Troost 64131
Roberts, Harold M., Professional Bldg. 64106
Robinett, Wade V., 6700 Troost 64131
Robinson, Arthur W., 4320 Wornall Rd. 64111
Robinson, E. Kip, Professional Bldg. 64106
Robinson, G. Wilse, Jr., 2625 W. Paseo 64108
Robinson, William J., 601 E. 63rd St. 64110
Robison, James T., Jr., 4620 Nichols Parkway 64112
Rodgers, George H., 10041 El Monte Lane, Overland Park, Kan. 66207
Rodgers, Samuel U., 2701 E. 31st St. 64128
Rogers, Robert L., 751 E. 63rd St. 64110
Rose, Charles W., 334 S. Van Brunt 64124
Rozen, Jay I., 6400 Prospect 64132
Rubin, Herbert M., 601 E. 63rd 64110
Rubin, Sidney, 4949 Rockhill Rd. 64110
Rubnitz, Leon H., 751 E. 63rd St. 64110
Rufe, John R., Bryant Bldg. 64106
Russell, James L., 1250 W. 56th St. 64113
Russell, Robert K., 63rd & Evanston, Raytown 64133
Sabates, Felix N., 6700 Troost 64131
Saferstein, A. Lester, 6859 Cherry 64131
Saladino, Anthony, 2009 W. 67th, Shawnee Mission, Kan. 66208
Samuelson, Edward A., 4620 Nichols Parkway 64112
Sanders, Donald C., 2625 W. Paseo 64108
Sanders, Harmon U., Jr., 2246 Rhode Island, Lawrence, Kan. 66044
Sanders, William F., 411 Nichols Rd. 64112
Sandow, Theodore L., Jr., 4320 Wornall Rd. 64111
Santoro, Carlos G., 1103 Westport Rd. 64111
Saper, Philip, 10001 Madison, Lee's Summit 64114
Sasano, Joseph R., Jr., 1710 Independence Ave. 64106
Sauer, Gordon C., 6400 Prospect Ave. 64132
Saunders, Everett L., 121 W. Lexington, Independence 64050
Scales, Margaret B., 6601 Rockhill Rd., 64110
Schaerrer, William C., 4320 Wornall Rd. 64111
Schiffmacher, Jack E., Professional Bldg. 64106
Schillie, Gene A., 6400 Prospect 64132
Schmidt, C. Robert, 6400 Prospect 64132
Schoolman, Arnold, 6700 Troost 64131
Schottman, Gerhard W., Jr., St. Luke's Hosp. 64111
Schutz, Carl B., 841 San Pablo Dr., San Marcos, Calif. 92069
Schutz, Richard B., 411 Nichols Rd. 64112
Scott, Charles C., 437 E. 73rd 64131
Seely, Clark W., 1710 Independence Ave. 64106
Sells, Kenneth J., 5100 E. 24th St. 64127
Shalet, Malcolm F., 425 E. 63rd St. 64110
Shapiro, Lazare M., 701 E. 63rd St. 64110
Sheahon, John A., 6706 Raytown Rd. 64133
Shechter, Nathan, 601 E. 63rd 64110
Shelden, Russell D., 6400 Prospect 64132
Shifrin, Alexander, 6700 Troost 64131
Shireman, Kenneth L., 4606 St. John 64123
Shires, Edward B., 6700 Troost 64131
Shockley, Clarence J., 5927 McGee 64113
Shofstall, Charles K., 229 Ward Parkway 64112
Shopfner, Charles E., 1710 Independence 64106
Shuey, Herbert H., 3903 Brooklyn 64130
Shypper, Moses J., 13527 Crewe St., Van Nuys, Calif. 91405
Siegel, Carl, 601 E. 12th 64106
Simmons, Donald D., 600 E. 22nd St. 64108
Simmons, John L., 6400 Prospect 64132
Simon, Sanford, 601 E. 63rd St. 64110
Singleton, John M., III, 411 Nichols Rd. 64130
Skillman, Robert K., 4320 Wornall Rd. 64111
Skinner, John T., Bryant Bldg. 64106
Slankard, Edward, 4320 Wornall Rd. 64111
Slentz, Edwin L., 4320 Wornall Rd. 64111
Slentz, William A., 4320 Wornall Rd. 64111
Slickman, R. A., 6700 Troost 64131
Smith, Arthur B., 6400 Prospect Ave. 64132
Smith, H. Eugene, 411 Nichols Rd. 64112
Smith, Ira T., 6400 Prospect 64132
Smith, Katherine W., 1710 Independence Ave. 64106
Smith, O. D., 6300 Woodson, Mission, Kan. 66202
Smith, Wallace B., 10901 Winner Rd., Independence 64052
Smull, Ned W., 2318 W. 70th Terr. Shawnee Mission, Kan. 66208
Sneid, Philip, 701 E. 63rd St. 64110
Snider, Wilbur R., 10901 Winner Rd., Independence 64052
Somoza, Jose, 15 N. E. Hill St. 64116
Spafford, Allen L., 315 Nichols Rd. 64112
Spalding, Wilber B., Jr., 1102 Grand 64106
Spencer, Donald M., 4240 Blue Ridge Blvd. 64133
Spies, Barbara J., 11201 Colorado 64137
Spurny, Otto M., 425 E. 63rd St. 64110
Stacey, Wallace R., 2116 S. Sterling Ave., Independence 64052
Staggs, William A., Argyle Bldg. 64106
Staley, Harry R., Bryant Bldg. 64106
Statland, Harry, 601 E. 63rd St. 64110
Statland, Morris, 601 E. 63rd St. 64110
Steffen, Lawrence F., 4706 Broadway 64112
Stegman, Elmer G., 6137 Blue Ridge Blvd., Raytown 64133
Stein, Joseph W., 1103 Grand Ave., 64106
Stelle, Charles W., Box 1159, The Bendix Corp. 64141
Stelmach, Walter J., 6700 Troost 64131
Stockton, Raymond W., 4320 Wornall Rd. 64111
Stockwell, A. Lloyd, Professional Bldg. 64106
Stotts, Charles S., R.R. 4, Fredonia, Kan. 66736
Stratemeier, Edward H., 31st & Wyandotte 64108
Strauss, Carl F., 8300 Troost 64131
Stribling, Thomas L., 2116 S. Sterling Ave., Independence 64052
Summers, Caldwell B., 7312 Jarboe, 64114
Sutton, Richard L., Jr., 411 Nichols Rd. 64112
Swisher, Robert C., 425 E. 63rd St. 64110
Switzer, Clyde, 8100 W. 54th Terr., Overland Park, Kan. 66202
Sword, Richard O., 800 W. 47th St. 64110
Szabados, Ernest D., 1612 W. Truman Rd., Independence 64050
Tamblyn, Claire L., 6400 Prospect 64132
Tarson, Solomon S., 5511 W. 85th St., Overland Park, Kan. 66207
Tasker, Charles B., 31st & Wyandotte 64108
Teare, Max E., 600 E. 22nd St. 64108
Terrill, Robert S., 4706 Broadway, 64112
Tesson, James A., 906 Grand Ave. 64106
Theel, Otto W., Jr., 4301 Main 64111
Thiele, George H., 4545 Wornall Rd. 64111
Thomas, Christopher Y., 4320 Wornall Rd. 64111
Thompson, Charles L., 4320 Wornall Rd. 64111
Tice, Wayne K., 1509 W. Truman Rd., Independence 64050
Tiojanco, Milagros E., 24th & Cherry 64108
Totten, Frederick E., 6700 Troost 64131
Trimble, George X., 101 Memorial Dr. 64108
Troeh, Melvin R., 10901 Winner Rd., Independence 64052
Trowbridge, Barnard C., 415 E. 63rd St. 64110
Trowbridge, Ellsworth H., Jr., 411 Nichols Rd. 64112
Turner, Ronald M., 10901 Winner Rd., Independence 64052
Tutera, Dominic F., Plaza Medical Bldg. 64112
Tuthill, Herbert, 1037 W. 71st Terr. 64114
Twin, Edward J., 6601 Rockhill Rd. 64131
Twyman, Richard A., 4320 Wornall Rd. 64111
Underwood, Dick H., 6700 Troost 64131
Underwood, Johnson, Jr., Professional Bldg. 64106
Underwood, Ross H., 5522 Aberdeen Rd., Shawnee Mission, Kan. 66205
Unger, Harold, 601 E. 63rd 64110
Upsher, Albert E., Box 2778, 64106
Valins, Eugene, 751 E. 63rd St. 64110
Van Biber, James T., 1612 W. Truman Rd., Independence 64050
Van Buskirk, Terrance E., 5246 St. John 64123
Van Buskirk, William C., 6700 Troost 64131
Vaughn, James W., 2625 W. Paseo 64108
Vermeire, David A., 1735 Baltimore 64108
Vidals, Guillermo, 7540 Troost 64131
Vilmer, Charles, Professional Bldg. 64106
Vincent, Jack C., 8300 Troost 64131
Virden, Herbert H., 6700 Troost 64131
Viril, Leonardo C., 4706 Broadway 64112
Vogel, Arthur P., 6700 Troost 64131
Voth, Harold W., 4320 Wornall Rd. 64111
Wade, Frederick E., Professional Bldg. 64106
Wagner, Paul J., 2826 Main 64108
Wakefield, Franklin H., 8352 Overbrook Rd., Leawood, Kan. 66206
Walker, James C., 2727 Main 64108
Walker, John W., 6400 Prospect 64132

Walker, Orville C., Jr., 10901 Winner Rd. Independence 64052
Wall, Harry C., 751 E. 63rd St. 64110
Wall, Leonard A., 4320 Wornall Rd. 64111
Watson, Ethel, First National Bank Bldg. Independence 64050
Waxman, David, 4840 Prospect 64130
Waxman, Herbert J., 8300 Troost 64131
Waxman, Jane Z., 4840 Prospect 64130
Webb, Harry E., 330 W. 47th St. 64112
Weiford, Edward C., 4320 Wornall Rd. 64111
Weir, Robert K., 4240 Blue Ridge Blvd. 64133
Weller, Lynn D., Jr., 6700 Troost 64131
Wells, James A., 600 E. 45th St. 64110
Wells, John H., 3325 Prospect 64128
Weltscheff, Christo A., 1800 Blue Ridge Ext. 64146
Wertzberger, John J., 4240 Blue Ridge Blvd. 64133
Wheeler, Charles B., 4320 Wornall Rd. 64111
Wheeler, John H., 4320 Wornall Rd. 64111
White, Charles H., 6700 Troost 64131
White, George A., 3416 Paseo Blvd. 64109
White, James S., 2849 Indiana 64128
White, Stoughton F., 4320 Wornall Rd. 64111
White, William E., 6400 Prospect 64132
Whiteman, John R., 6314 Brookside Plaza 64113
Whitman, Doyle C., 18 E. 11th St. 64106
Whitmore, J. Stewart, 123 Garden Blvd. East 64110
Whittaker, Charles K., 4320 Wornall Rd. 64111
Wicks, Edwin O., 414 E. 12th 64106
Wien, Irving A., 1103 Grand 64106
Wilber, Robert D., 4320 Wornall Rd. 64111
Wilhelm, Warren F., 6400 Prospect 64132
Wilkinson, Charles B., 4604 Benton Blvd. 64130
Wilkinson, Everett A., 6400 Prospect 64132
Williams, Frank R., 4320 Wornall Rd. 64111
Williams, George P., 10604 Blue Ridge Ext. 64134
Williams, Joseph C., Jr., 6400 Prospect 64132
Williams, Roland D., 305 W. 43rd St. 64111
Williams, Starks J., 5600 Agnes 64130
Williams, Thomas A., 7300 Washington 64114
Williamson, George L., Professional Bldg. 64106
Willits, Lyle G., Professional Bldg. 64106
Willoughby, James W., 1125 Grand 64106
Willoughby, Jean B., 6400 Prospect 64132
Wilson, Clifford C., 4320 Wornall Rd. 64111
Wilson, Hester J., Plaza Time Bldg. 64112
Winer, Bernard A., 751 E. 63rd 64110
Winer, Herbert J., 751 E. 63rd St. 64110
Winkelman, Esther B., 6400 Prospect 64132
Winston, Bernard H., 601 E. 63rd St. 64110
Wise, George W., 1710 Independence Ave. 64106
Withers, Orval R., Plaza Parkway Bldg. 64112
Wolf, Jack W., 425 E. 63rd St. 64110
Woodman, Grey M., 2200 McCoy St. 64108
Woods, Harold V., 1405 W. 40 Hwy., Blue Springs 64015
Woods, S. Dwight, 4320 Wornall Rd. 64111
Woods, Walton C., Medical Dept. TWA, Midcontinent Intl. Airport 64108
Woodward, William W., 4240 Blue Ridge Blvd. 64133
Workman, Charles E., Professional Bldg. 64106
Wortmann, Robert F., 6400 Prospect 64132
Wright, R. Paul, Professional Bldg. 64106
Wu, William Q., 6700 Troost 64131
Wurster, W. Joel, 305 W. 43rd St. 64111
Yohe, Ruth M., 1710 Independence Ave. 64106
Youll, Donald V., 6700 Troost 64131
Youmans, Ronald A., 415 E. 63rd St. 64110
Young, James E., 716 Medical Plaza 64111
Young, Jesse W., 1401 Southwest Blvd., Kansas City, Kan. 66103
Young, Paul R., 2316 E. Meyer Blvd. 64132
Youngblood, James P., 4620 Nichols Parkway 64112
Zacharias, David L., St. Joseph Hosp., Linwood Blvd. at Prospect 64128
Zahony, Ivan, 4409 W. 93rd St., Prairie Village, Kan. 66207
Zellermayer, Jacob, 701 E. 63rd St. 64110

JASPER COUNTY MEDICAL SOCIETY
(Joplin)

Adams, Robert B., Jr., Medical Arts Bldg. 64801
Allen, David O., 2525 S. Jackson 64803
Barnett, Norman H., 25th & Jackson 64803
Birsner, Frank H., 1717 River, Carthage 64836
Bladow, Terrence C., Medical Arts Bldg. 64801
Burch, John E., Medical Arts Bldg. 64801
Carnes, Victor M., Medical Arts Bldg. 64801
Chase, Ned B., Jr., 114-B Medical Arts Bldg. 64801
Chesney, George W., 25th & Jackson 64803
Cohle, Richard R., Carthage 64836
Craig, Irvin T., 25th & Jackson 64803
Crawford, Archie L., Frisco Bldg. 64801
Crispell, Lawrence S. 6th & Pearl 64801
DeTar, Burleigh E., 410 Jackson 64801
Eliscu, Juliette M., 2002 Jackson 64803
Esther, John R., Ferguson's Med. Laboratories 64801
Ferguson, Lewis H., Jr., 604 Plaza Dr. 64803
Ferguson, Ralph L., Medical Arts Bldg. 64801
Ferguson, Robert M., 110 N. Webb, Webb City 64870
Fritsch, Andrew J., 2920 Pearl 64801
Gaston, Samuel Lee, 101 Medical Arts Bldg. 64801
Grubb, Paul H., 2509 Jackson 64803
Hall, Marvin F., Medical Arts Bldg. 64801
Hallaha, M. A. S., 25th & Jackson 64801
Hamilton, Eugene H., Medical Arts Bldg. 64801
Holtzman, Samuel, Medical Arts Bldg. 64801
Hornback, Edward R., 2841 E. 14th 64801
Hurst, Wilfred W., Medical Arts Bldg. 64801
Isbell, Charles H., Carthage 64836
Jeans, Virgil, Medical Arts Bldg. 64801
Kirschman, Robert E., 2529 Jackson 64803
Koehler, John W., Medical Arts Bldg. 64801
Kuhn, John R., Jr., Frisco Bldg. 64801
Laney, Ronald L., P. O. Box 434, Carlsbad, Calif. 92008
Longenecker, Joe L., 2503 Jackson 64803
McNew, William T., Carthage 64836
McPike. Lloyd H., Frisco Bldg. 64801
Mack, Mary L. (Address Unknown)
MacLaughlin, James C., Medical Arts Bldg. 64801
Maddox, John D., 6th & Pearl 64801
O'Brien, James A., 545 N. 6th St., Muskogee, Okla. 74401
Paddock, Charles S., Medical Arts Bldg. 64801
Papp, Sandor D., Medical Arts Bldg. 64801
Patterson, Donald R., 2509 Jackson 64803
Patterson, Grover S., 510 S. Main, Carthage 64836
Pence, F. Wendell, 612 S. Main, Carthage 64836
Poor, Carl W., Rt. 1, Box 302, Neosho 64850
Post, Winfred L., 617 Joplin 64801
Powell, Robert G., 2329 Jackson 64803
Royce, James J., Sarcoxie 64862
Schmidt, Herbert J., Medical Arts Bldg. 64801
Schoeberl, Cletus B., Medical Arts Bldg. 64801
Schulte, Gregory A., 2125 Jackson 64803
Scorse, Sidney W., 2509 Jackson 64803
Shanahan, Mary P., 2001 Sergeant Ave. 64801
Smith, Roland T., Medical Arts Bldg. 64801
Smith, William R., 211 E. Chestnut, Carthage 64836
Vinson, Harold A., 107 Medical Arts Bldg. 64801
Walker, Paul W., Medical Arts Bldg. 64801
Whitten, M. Foster, 616 W. Centennial, Carthage 64836
Wieman, Harry K., Medical Arts Bldg. 64801
Wilcox, Ruth E., 614a Joplin 64801
Wilson, Alice H., 1923 Sergeant 64803
Wood, George H., 1515 Hazel, Carthage 64836
Wooldridge, Bart F., Medical Arts Bldg. 64801
Young, Calvin C., Jr., Medical Arts Bldg. 64801

JEFFERSON COUNTY MEDICAL SOCIETY

Allbee, Roger H., Crystal City 63019
Blank, Michael K., De Soto 63020
Bolgar, Bertalan, Festus 63028
Carron, Joseph F., Arnold 63010
Deles, Vincente D., Crystal City 63019
Donnell, Harold E., Desoto 63020
Donnell, Robert H., Crystal City 63019
Donnell, Thomas A., Desoto 63020
Edwards, Waldo B., 135 W. Adams Ave., Kirkwood 63122
Glasgow, David S., Crystal City 63019
Ibaviosa, Alfred C., Crystal City 63019
Judge, Walter T., Crystal City 63019
Kozal, Francis L., Crystal City 63019
McKinstry, Karl V., Desoto 63020
Mayfield, James L.. Crystal City 63019
Rice, Carl E., Hillsboro 63050
Romero, Richard N., Crystal City 63019
Rutledge, John F., Festus 63028
Senn, Emmett J., Herculaneum 63048
Yoskit, Harry, Festus 63028

JOHNSON COUNTY MEDICAL SOCIETY
(Warrensburg 64093)

Cada, Edward G., Warrensburg
Cooper, R. Lee, Warrensburg
Damron, Oscar H., Warrensburg
Folkner, A. L., Warrensburg
Frein, Donald E., Leeton 64761
Gonzalez, M. Garza, Warrensburg
Grove, Gulph W., Knobnoster 65336
Hanna, Hugh A., Warrensburg
Harkness, Harry, Warrensburg
Johnson, Charles S., Warrensburg
Jones, Keith D., Warrensburg
Lederer, Charles M., Warrensburg
Maxson, T. Reed, Warrensburg
Rawlins, Kelly, Holden 64040
Reynolds, Wayne M., Rt. 4, Box 89, Lee's Summit 64063

KNOX COUNTY
(North Central Counties Medical Society)

LACLEDE COUNTY
(Mid-Missouri County Medical Society)

LAFAYETTE-RAY COUNTY MEDICAL SOCIETY

Baldwin, Theodore R., 1236 Jesse James Rd., Excelsior Springs 64024
Best, Robert, Higginsville 64037
Boydston, Catherine, Odessa 64076
Boydston, W. Wayne, Odessa 64076
Brady, Hugh S., Concordia 64020
Brasher, Ben H., Lexington 64067
Cook, Thomas B., Richmond 64085
Cope, Joseph S., Lexington 64067
Crayton, Billy G., Waverly 64096
Crozier, Franklin A., Richmond 64085
Davault, George K., Richmond 64085
Fulkerson, Wilbur E., Higginsville 64037
Goldberg, Isadore E., Braymer 64624
Hubbard, Sally L., Higginsville 64037
Huber, K. Herbert, Richmond 64085
Kelling, Jordan, Waverly 64096
Koppenbrink, Walter E., Jr., Higginsville 64037
LaHue, William C., 65 Bahama Circle, Tampa, Fla. 33606
McFadden, Gene A., Waverly 64096
Martin, Wilfred E., Odessa 64076
Riley, Charles T., Richmond 64085
Ward, Joe, Lexington 64067
Williams, John W., Oak Grove 64075

LAWRENCE COUNTY
(Ozarks Medical Society)

LEWIS-CLARK-SCOTLAND COUNTIES MEDICAL SOCIETIES

Davis, Landis Y., Canton 63435
Gilfillan, Earl E., Memphis 63555

LINCOLN-ST. CHARLES COUNTY MEDICAL SOCIETY
(St. Charles 63301)

Baird, Keim L., 2850 W. Clay St.
Barnette, Eugene, 2850 W. Clay St.
Berry, Paul T., 370 E. Wood, Troy 63379
Canty, Eugene J., 114 N. Main
Clever, Henry W., Jr., 1301 Boonslick Rd.
Commerford, John F., 1301 Boonslick Rd.
Cottey, John H., USAH Asmara, Ethiopia, APO N. Y. 09843
Creech, Joseph C., Troy 63379
Crider, Russell J., 222 S. 2nd St.
Damron, Edward O., Elsberry 63343

Del Pizzo, Ferdinand, Jr., 1301 Boonslick Rd.
Duling, Gerald J., 2850 W. Clay St.
DuMontier, R. J., O'Fallon 63366
Felder, James P., 449 Nantucket Dr.
Fleming, Robert J., 120 Clay
Goldkamp, John D., 2850 W. Clay St.
Gore, Glenn L., 2850 W. Clay St.
Hammes, Roman E., 2850 W. Clay St.
Hanlon, Russell C., 1301 Boonslick Rd.
Hantman, Stephen L., 3246 Greenranch Dr., Bridgeton 63042
Hetlage, Louis P., Troy 63379
Hurd, James R., 115 S. Cardinal Lane
Kamada, Tsutomu, 115 W. Pitman, O'Fallon 63366
Keller, Robert M., 704 W. Old Hwy. 40, Wentzville 63385
Kister, George E., 302 S. 2nd St.
Linsenmeyer, Charles M., 119 Clay St.
Molony, Basil A., 2850 W. Clay
Muenster, Vincent P., 2850 W. Clay St.
Neubeiser, Ben L., 2nd & Clay Sts.
Perna, Vincent P., 100 N. Euclid Ave. St. Louis 63108
Poggemeier, William H., Jr., 302 S. 2nd St.
Randall, Don Q., 220 S. 6th St.
Ridzon, Thomas J., 2850 W. Clay St.
Roach, Edward A., 2850 W. Clay St.
Roter, Alexander M., 2414 W. Clay
Rother, Paul H., 1301 Boonslick Rd.
Schneider, Thomas A., 2850 W. Clay St.
Schuetz, Alfred, 904 Indian Hills
Scokel, Paul W., III, 2850 W. Clay St.
Slotkin, Robert J., 2850 W. Clay St.
Smoller, Martin B., 2850 W. Clay St.
Soucy, John C., 2850 W. Clay
Thiele, O. K., 140 N. Kingshighway
Towers, Orville W., 1301 Boonslick Rd.
Vart, Gary R., 2850 W. Clay
Westerfeld, Roy A., 1301 Boonslick Rd.
Wipfler, Earl J., Jr., 143 Cardinal La.
Yaeger, Gerald A., 2444 W. Clay St.

LINN COUNTY
(Grand River Medical Society)

LIVINGSTON COUNTY
(Grand River Medical Society

McDONALD COUNTY
(Ozarks Medical Society)

MACON COUNTY
(Chariton-Macon-Monroe-Randolph County Medical Society)

MADISON COUNTY
(Mineral Area County Medical Society)

MARIES COUNTY
(Mid-Missouri County Medical Society)

MARION-RALLS-SHELBY COUNTY MEDICAL SOCIETY
(Hannibal 63401)

Archer, Perry C., Shelbyville 63469
Bach, Lysle M., 1734 Market St.
Burns, Francis R., 711 Grand
Clisham, John F., B & L Bldg.
Fischer, Thomas J., 2910 St. Mary's
Foreman, Phillip B., 711 Grand
Francka, W. F., 603 Country Club Dr.
Grant, Albert J., B. & L. Bldg.
Greene, Harry L., Holmes Bldg.
Hamlin, Wyeth, 711 Grand
Hinds, R. David, 2910 St. Mary's
Lanning, Robert J., 115 N. 5th St.
Latimer, Walter N. A., B & L Bldg.
Lichty, Charles A., Shelbina 63468
Lucke, Eugene M., 4000 McMasters Ave.
Mann, James K., 4074 Hillside Dr.
Murphy, Bernard L., 2000 Crescent Dr.
Plowman, Edward M., B & L Bldg.
Purcell, P L., Smithville 64089
Rapp, Earl L., 711 Grand
Roller, Merrill J., 2910 St. Mary's
Steele, James C., Jr., 711 Grand
Strong, Richard M., 711 Grand
Walterscheid, John H., 1209 Broadway
Well, Julius W., Palmyra 63461

MERCER COUNTY
(Grand River Medical Society

MID-MISSOURI COUNTY MEDICAL SOCIETY
(Phelps-Crawford-Dent-Pulaski-Maries-Laclede Counties)

Andreassen, Dimil F., Rolla 65401
Bass, Billy J., Salem 65560
Baumann, Albert R., Steelville 65565
Bealer, Louis A., Lebanon 65536
Beene, Thomas K., Lebanon 65536
Butts, James D., Rolla 65401
Carnell, B. M., Camdenton 65020
Carrington, Howard W., Lebanon 65536
Dierker, H. D., Lebanon 65536
Drake, Avery A., Rolla 65401
Elders, Frank A., Jr., Cuba 65453
Feind, Earl E., Rolla 65401
Froelich, Rae W., Lebanon 65536
Garrison, T. W., Camdenton 65020
Hammler, Christiana V., St. James 65559
Hart, Martin M., Salem 65560
Hite, Dennis E., Lebanon 65536
Holley, Donald B., Camdenton 65020
Kays, Kenneth M., Rolla 65401
Kielar, Richard A., 45 Wheeler, Ft Leonard Wood 65475
Lytle, William R., Rolla 65401
Miller, Clyde S., Waynesville 65583
Mitchell, Roy E., Salem 65560
Myers, James M., Rolla 65401
Pendell, Paul W., Rolla 65401
Porter, Jim C., Lebanon 65536
Riffel, Gordon W., Bourbon 65441
Russell, Barbara E., Rolla 65401
Smith, Ted P., 606 W. 12th, Rolla 65401
Striker, Emil A., St. James 65559
Young, Robert B., Rolla 65401

MILLER COUNTY MEDICAL SOCIETY

Buehler, Carl T., Jr., Eldon 65026
Shelton, Edward O., Eldon 65026

MINERAL AREA COUNTY MEDICAL SOCIETY
(St. Francois-Iron-Madison-Washington-Reynolds Counties)

Appleberry, Charles H., Rivermines 63668
Brennan, John A., 7750 Kingsbury, St. Louis 63105
Bugg, Andrew F., 312 E. 3rd St., Lordsburg, N. M. 88045
Bull, Ben M., Ironton 63650
Burcham, Tom R., Jr., Farmington 63640
Carleton, Charles E., Jr., Farmington 63640
Chastain, Charles W., Farmington 63640
Cresswell, George F., Potosi 63664
Crouch, F. Richard, Farmington 63640
Dennis, W. Paul, Flat River 63601
Dettmer, Robert F., Ironton 63650
Farmer, Norma D., Farmington 63640
Ford, William, Farmington 63640
Foster, Jack L., Desloge 63601
Fraser, Richard A., Bonne Terre 63628
Gaskins, Charles W., Ironton 63650
Grossman, Marvin, Fredericktown 63645
Hardy, Stanton L., Desloge 63601
Harland, Robert E., Ironton 63650
Hoctor, Emmett F., Farmington 63640
Huckstep, Robert A., Farmington 63640
Hunt, John W., Jr., Farmington 63640
Karraker, Alvan G., Farmington 63640
Mardini, Edward E., Bonne Terre 63628
Menne, Marvin C., Ironton 63650
Mullen, Jack, Bonne Terre 63628
Newcomb, Arthur W., 115 S. Wood Ave., Fredericktown 63645
Oliver, George A., Farmington 63640
Osborn, Retus W., III, Farmington 63640
Slaughter, Shelby C., Fredericktown 63645
Taylor, Van W., Bonne Terre 63628
Turner, Kirby L., Potosi 63664
Vester, James E., Bismarck 63624
Warren, T. Thomas, Potosi 63664
Watkins, George L., Jr., Farmington 63640

MISSISSIPPI COUNTY
(SEMO County Medical Society)

MONITEAU COUNTY MEDICAL SOCIETY
(California 65018)

Fulks, Richard B., California
Gallagher, Lionel M., California
Latham, Kenyon S., California

MONROE COUNTY
(Chariton-Macon-Monroe-Randolph County Medical Society)

MONTGOMERY COUNTY MEDICAL SOCIETY

Andersen, Elmer J. T., Montgomery City 63361
Byland, Samuel J., Wellsville 63384
Helm, James O., New Florence 63363
Steinbeck, Herbert F., Medical Bldg., Montgomery City 63361

MORGAN COUNTY MEDICAL SOCIETY
(Versailles 65084)

Gunn, Jack, Versailles
Kauffman, Ruth, Versailles
Lyle, Robert R., Versailles
Washburn, J. Loren, Versailles

NEW MADRID COUNTY
(SEMO County Medical Society)

NEWTON COUNTY
(Ozarks Medical Society)

NORTH CENTRAL COUNTIES MEDICAL SOCIETY
(Adair-Schuyler-Knox-Sullivan-Putnam Counties)
(Kirksville 63501)

Buben, Robert W., Kirksville
English, Milton T., Jr., Kirksville
Freeman, Spencer L., Kirksville
Grim, Edward M., Kirksville
Hasselblad, Oliver W., 297 Park Ave., South, New York, N. Y. 10011
Hilton, Paul E., Kirksville
Isom, Waldo B., Knox City 63446
Jones, John B., 1021 Queen Ann Dr. Columbia 65201
Stickler, Ralph O., Kirksville
Tarvydas, Francis, Edina 63537

NORTHWEST MISSOURI MEDICAL SOCIETY
(Nodaway-Holt-Achison-Gentry-Worth Counties)

Bare, Edward F., Tarkio 64491
Bauman, Henry C., Maryville 64468
Blacklock, David E., King City 64463
Byland, Benjamin F., Maryville 64468
Carlin, Albert L., Stanberry 64489
Carpenter, Wallace, Rock Port 64482
Dunshee, Robert E., Maryville 64468
Humphrey, James, Mound City 64470
Imes, Elvin D., Maryville 64468
Jackson, William R., Maryville 64468
Leach, Jon R., Maryville 64468
Matteson, Frank B., Grant City 64456
Morgan, Troy O., Jr., Albany 64402
Niedermeyer, Edward L., Tarkio 64491
Parsons, Bernie, Albany 64402
Wanamaker, John M., Rock Port 64482
Wempe, G. Raymond, Maryville 64468

OREGON COUNTY
(South Central Counties Medical Society)

OSAGE COUNTY
(Unorganized)

OZARK COUNTY
(South Central Counties Medical Society)

OZARKS MEDICAL SOCIETY
(Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald Counties)

Anderson, Paul B., Neosho 64850
Blankenship, George W., Neosho 64850
Bowman, Melvin C., Neosho 64850
Brasher, Charles A., Mt. Vernon 65712
Brown, Frederick B., Aurora 65605
Capetti, Alex P., Crane 65633
Carter, James R., Neosho 64850
Christianson, Charles S., Mt. Vernon 65712
Coffman, Esther E. L., 1514 13th North, Lakeworth, Fla. 33460
Crain, James W., Branson 65616
Dabbs, Wilbur D., Neosho 64850
Donley, Robert R., Monett 65708
Edwards, Francis L., Monett 65708
Evans, Harry T., Branson 65616
Galinsky, Leon, Mt. Vernon 65712
Gardner, Joseph W., Reeds Spring 65737
Gillispie, Roy, Branson 65616
Glass, William J., Jr., Monett 65708
Glover, Kenneth, Mt. Vernon 65712
Graves, Arthur J., Mt. Vernon 65712
Hamilton, William P., Aurora 65605
Hellweg, Charles E., Mt. Vernon 65712
Kelsey, Kenneth L., Aurora 65605
Kenney, Roy E., Neosho 64850
Kerr, Frank T., Monett 65708
Lentz, Harold C., Neosho 64850
Magness, William C., Branson 65616
Mars, Hartley F., Forsyth 65653
Merideth, Mary Jane, Cassville 65625
Meyers, Rosellen C., 7552 Buckingham Dr., St. Louis 63105
Moore, Allen H., Jr., Branson 65616
Morrison, T. A., Aurora 65605
Olive, George C., Neosho 64850

Priee, Charles H., 30 G. S. W. Miami, Okla. 74354
Reynolds, James R., Neosho 64850
Roper, Stanley D., Ozark 65721
Sehultz, Loraine E., Branson 65616
Shumate, L. St. Clair, Reeds Spring 65737
Spears, Charles A., Branson 65616
Sweany, Henry C., 1502 W. Broadway, Columbia 65201
Taylor, Leo T., Neosho 64850
Wommack, Fred L., Crane 65633

PEMISCOT COUNTY MEDICAL SOCIETY

Aquino, Philip J., Caruthersville 63830
Bernard, J. W., Caruthersville 63830
Cain, Charles F., Caruthersville 63830
Cook, Oliver W., Caruthersville 63830
Cooper, Lawrence E., 1274 Hanton, Fort Myers, Fla. 33901
Duckworth, Gordon Lee, Jr., Hayti 63851
Grable, James, Portageville 63873
Gubin, Alan S., Caruthersville 63830
McCoy, Warren R., Caruthersville 63830
McKaskle, Clarence W., Caruthersville 63830
Painter, Andrew E., Portageville 63873
Painter, Lattie B., Jr., Portageville 63873
Shirey, Arnold G., Hayti 63851

PERRY-STE. GENEVIEVE COUNTIES MEDICAL SOCIETY

Carron, Oscar A., Perryville 63775
DeGenova, Gerard H., Ste. Genevieve 63670
Fairchild, James F., Perryville 63775
Feltz, Lawrence W., Perryville 63775
Fischer, Theodore, Altenburg 63732
Lanning, Richard C., Ste. Genevieve 63670
Lutkewitte, Joseph F., Ste. Genevieve 63670
McDermott, Alfred E., Perryville 63775
Miller, Oliver J., 1972 Bend Rd., Cape Girardeau 63701
Utterman, William F., Perryville 63775

PETTIS COUNTY MEDICAL SOCIETY
(Scdalia 65301)

Bess, William E., 914 S. Beacon
Boger, James W., 500 W. 16th St.
Brady, Charles H., Gordon Bldg.
Braverman, Elliot M., 1501 S. Grand Ave.
Brazos, John C., Smithton 65350
Burkenholder, James N., 2002 S. Kentucky
Campbell, Albert J., Jr., 625 E. 13th
Daum, Harold F., Bothwell Memorial Hosp.
Edmonds, Robert W., 1718 Ingram
Edwards, David R., 700 S. Limit
Eldenburg, Donald, 700 S. Limit
Fisher, Stanley D., Sedalia
Glass, Robert L., 720 S. Beacon
Gonser, Karl B., 101 S. Ohio
Hopkins, Thomas J., 700 S. Limit
Hopkins, T. Speneer, 1609 S. Limit
Lamy, John E., 509 W. Broadway
Lowe, Alvin L., 621 W. 16th St.
Maddox, Albert R., 116 W. Main
Owings, Raymond H., Bothwell Memorial Hosp.
Proctor, Donald C., 700 S. Limit
Rhodes, Euhlan L., Warsaw 65355
Roberts, Paul A., Sweet Springs 65351
Rodeman, John M., Gordon Bldg.
Siegel, Peter V., 3706 Corey Place, Washington, D. C. 20016
Stauffacher, C. Gordon, 700 S. Limit
Stewart, Robert H., Bothwell Memorial Hosp.
Stockwood, Robert C., 1718 S. Ingram
Van Dyke, Elmer H., 1718 S. Ingram
Walter, Archie L., 500 W. 16th St.
Worley, Charles A., Sweet Springs 65351

PHELPS COUNTY
(Mid-Missouri County Medical Society)

PIKE COUNTY MEDICAL SOCIETY

Andrae, Robert L., Louisiana 63353
Cancelada, John, Bowling Green 63334
Christensen, Roger F., Louisiana 63353
Day, John K., 1012 Maplewood, Columbia 65201
Jackson, Edward K., Clarksville 63336
Lewellen, Charles H., Louisiana 63353
Martin, W. Joe, Louisiana 63353
Middleton, John W., Louisiana 63353
Stuerman, Lawrenee G., Louisiana 63353
Wilcoxen, William B., Bowling Green 63334

PLATTE COUNTY MEDICAL SOCIETY

Allen, S. Lloyd, 3809 N.W. 62 Terr., Kansas City 64119
Kimball, Ireland W., 5621 Valley Rd., Kansas City 64151
Parker, H. Graham, Platte City 64079
Robinson, John A., Edgerton 64444
Sincox, Charles H., Platte City 64079
Tharp, Judith L., Platte City 64079
Thurman, Hill C., Parkville 64152
Vescovo, Paul C., 4106 Vivion Rd., Kansas City 64117
Wolfram, Philip H., Platte City 64079

POLK COUNTY
(Dallas-Hickory-Polk-Dade County Medical Society)

PULASKI COUNTY
(Mid-Missouri County Medical Society)

PUTNAM COUNTY
(North Central Counties Medical Society)

RALLS COUNTY
(Marion-Ralls-Shelby County Medical Society)

RANDOLPH COUNTY
(Chariton-Macon-Monroe-Randolph County Medical Society)

RAY COUNTY
(Lafayette-Ray County Medical Society)

REYNOLDS COUNTY
(Mineral Area County Medical Society)

RIPLEY COUNTY
(Butler-Wayne-Ripley County Medical Society)

ST. CHARLES COUNTY
(Lincoln-St. Charles County Medical Society)

ST. CLAIR COUNTY
(West Central Missouri Medical Society)

ST. FRANCOIS COUNTY
(Mineral Area County Medical Society)

STE. GENEVIEVE COUNTY
(Perry-Ste. Genevievc Counties Medical Society)

ST. LOUIS MEDICAL SOCIETY
(St. Louis)

Aach, Richard D., Barnes Hospital Plaza 63110
Abel, Charles C., 4511 Forest Park Blvd. 63108
Abel, Oliver, III, 4511 Forest Park Blvd. 63108
Abell, Walter E., 2253 S. 39th St. 63110
Abrams, Morris, 4919 Forest Park Blvd. 63108
Acker, Harry L., 150 N. Meramec 63105
Ackerman, Lauren V., 600 S. Kingshighway 63110
Adams, James T., 260 Crittenden Blvd., Rochester, N. Y. 14620
Adler, Benard C., 4511 Forest Park Blvd. 63108
Agress, Harry, 8631 Delmar 63124
Ahern, Archibald M., 3915 Watson Rd. 63109
Ahlering, George H., 950 Francis Pl. 63105
Aitken, Louis F., 4989 Barnes Hosp. Plaza 63110
Akyol, Salim, #4 Highfield Lane 63131
Alexander, Frazier D., 4969 Enright 63108
Alien, Henry C., Clayton Medical Bldg., 63105
Allen, Hollis N., 634 N. Grand 63103
Allen, Melvin A., 3701 Grandel Sq. 63108
Allen, Willard M., 4911 Barnes Hosp. Plaza 63110
Allen, William E., Jr., 720 N. Sarah 63108
Alonso-Yague, P., 100 N. Euclid 63108
Altheide, J. Paul, 607 N. Grand 63103
Alvis, Bennett Y., 211 N. Meramee 63105
Alvis, Edmund B., 211 N. Meramec 63105
Amado-Ledo, David E., 10041 Meadowfield 63128
Anderson, Charles B., Barnes Hosp. Plaza 63110
Anglo, Luis B., 3912 Ritz Center 63125
Anstey, George, 4660 Maryland 63108
Anthony, Elwyn J., 369 N. Taylor Ave. 63108
Arneson, Axel N., 457 N. Kingshighway 63108
Arney, William G., 16 Hampton Village Plaza 63109
Arnot, John P., 35 N. Central Ave. 63105
Aronberg, Lawrence M., 4466 W. Pine, Apt. 10-G 63108
Atkins, F. Eliska, 5535 Delmar Blvd. 63112
Auer, Arthur I., 667 Langton 63105
Auer, Edward T., #9 Clayton Terr. 63131
Aufderheide, G. R., 2326 Noll Dr. 63136
Aulenbacher, Carl E., 645 S. New Ballas Rd. 63141
Avioli, Louis V., 216 S. Kingshighway 63110
Aylward, Howard J., 6651 Chippewa 63109
Azuma, Nobutaka, 3901 Tholozan 63116
Azzouni, Joseph N., 542 Gravois Rd., Fenton 63026
Babka, Joseph J., 3845 Federer Pl. 63116
Backer, Matthias H., Jr., 10345 Watson Rd. 63127
Badger, Virginia M., 113 Stoneyside Lane 63132
Bailey, Drennan, 6356 Clayton Rd. 63117
Balazs, Karl J., 165 S.E. Bieney Rd., Port Charlotte, Fla. 33950
Ballinger, Walter F., II, 4960 Audubon Ave. 63110
Bandle, Donald F., 3801 January 63109
Banet, Samuel R., 83 Pebblebrook Lane 63141
Banton, M. Roman, 2917 St. Louis Ave. 63106
Banton, Thomas J., 114 Northland Medical Bldg. 63136
Banton, William C., 2917 St. Louis Ave. 63106
Barden, Frank W., 41 Beaver Dr., Creve Coeur 63141
Bardenheier, J. Phil, 6400 Morganford Rd. 63116
Barner, Hendrick, 1325 S. Grand Blvd. 63104
Barrett, Scott R., 5086 Easton 63113
Barrios, Franciseo, 5641 Potomac 63139
Bartels, Leo G., 906 Olive 63101
Bartlett, Robert W., 100 N. Euclid 63108
Bartlett, Willard, Jr., 6744 Clayton Rd. 63117
Bartnick, Mitchel L., 6476 Eichelberger 63109
Baue, Arthur E., 216 S. Kingshighway 63110
Bauer, John D., Northland Medical Bldg. 63136
Bauer, Maria, 1935 Edison, Granite City, Ill. 62040
Bauer, Otto, 1935 Edison, Granite City, Ill. 62040
Baumann, William B., Box 84, APO, New York 09510
Baumgarten, Walter, Jr., 5505 Delmar 63112
Bawell, Malcolm B., 950 Francis Pl. 63105
Beard, Daniel D., 2356 Wallis 63114
Beare, J. Byron, 3720 Washington 63108
Beato, David L., 6305 Devonshire 63109
Becker, Bernard, 640 S. Kingshighway 63110
Becker, Edward J., 906 Olive 63101
Becker, George H., 6744 Clayton Rd. 63117
Becker, Stanley C., 3720 Washington Blvd. 63108
Beckette, Edmund S., 950 Francis Pl. 63105
Beckman, Donald E., 4205 Virginia Ave. 63111
Behrens, Donald T., 3654 S. Grand Blvd. 63118
Behrens, Gerald L., #3 Colonial Ct. 63124
Beidle, Raymond J., 500 Northwest Plaza, St. Ann 63074
Beis, Louis D., 5305 Lindenwood 63109
Belancourt, Dunet F., 4503 Pope Ave. 63115
Belew, Joe E., 5505 Delmar 63112
Bell, Robert M., 3720 Washington 63108
Benage, Clarence M., 1125 Graham Rd. 63031
Benjamin, Durand, 7430 Virginia 63111
Benson, John F., 3737 N. Kingshighway 63115
Benton, Calvin B., 1125 Belrue Ave. 63130
Berard, Louis N., 812 Olive 63101
Berg, Leonard, 4989 Barnes Hospital Plaza 63110
Berg, Ralph, 3203 S. Grand 63118
Bergman, Hugo F., 3720 Washington 63108
Bergmann, Dwayne, 427 Venneman 63122
Bergner, Grace E., 114 N. Taylor 63108
Berland, Harry I., 812 Olive 63101
Berman, William, 4919 Forest Park Blvd. 63108
Berry, John W., 9845 Northbridge 63124
Bersche, Bertram L., 23 Beaver Dr. 63141
Bettonville, Paul J., Jr., 6331 Pershing 63130
Biddy, Ralph L., 915 N. Grand Blvd. 63103
Biller, Hugh F., 8627 Old Towne Dr. 63132

Bilsky, Nathan, 4511 Forest Park Blvd. 63108
Bindbeutel, Arthur H., 5203 Chippewa 63109
Bindbeutel, Donald A., 25 Willow Oak Lane 63122
Binder, Morton A., 4652 Maryland 63108
Bircher, John L., 3932 Federer Pl. 63116
Birge, Clifford A., 320 N. Meramec 63105
Bishop, Mary M., 4524 Forest Park Ave. 63108
Bisno, Daniel, 8000 Bonhomme Rd. 63105
Blackwell, Charles R., 3162 College Lane 63103
Blair, Vilray P., Jr., #9 Stoney Brooks La. 63124
Block, Arnold S., 4919 Buckingham Ct. 63108
Blount, Lee, Jr., 3737 N. Kingshighway 63115
Bockelmann, Clifford H., 2615 Brentwood Blvd. 63117
Boedeker, Roy V., 100 N. Euclid 63108
Boemer, Lilborn C., 49 Clermont Lane 63124
Bohne, William R., 2806 S. Fairfield Ave., Ft. Wayne, Ind. 46807
Bohrer, Harry C., 607 N. Grand 63103
Boldizar, Albert G., 3720 Washington 63108
Boldt, Thomas H., Northland Medical Bldg. 63136
Bondurant, Bryce H., 134 Frontenac Forest 63131
Bonfanti, Albert L., P.O. Box 4148, Jennings Station 63136
Boniuk, Isaac, 4989 Barnes Hospital Plaza 63110
Borowsky, Benjamin A., 100 N. Euclid Ave. 63108
Boswell, John R., 12918 Topping Estates North Dr. 63131
Boucher, Robert, 8 Roosevelt Ave., Concord, N. H. 03301
Boveri, Joseph C., 8201 Fendale Dr. 63123
Bowdern, Edward H., #2 Berkshire La. 63117
Bowen, Stephen F., Jr., 16 Hampton Village Plaza 63109
Bowerman, Harold H., 607 N. Grand 63103
Bowersox, Warren A., 214 N. First St., Pacific 63069
Bowles, William T., 4960 Audubon 63110
Boyd, Arthur M., 1615 S. Grand Ave., 63104
Bradley, Frank R., 600 S. Kingshighway 63110
Bradley, Richard V., 35 N. Central 63105
Brady, Harry R., 47 York Dr. 63144
Brangle, Robert W., 765 High Hampton Rd. 63124
Bremser, Harry L., 1105 Tower Grove 63110
Brennan, George A., 3654 S. Grand 63118
Brennan, Robert A., 3654 S. Grand 63118
Brennan, Robert V., 111 N. Taylor 63122
Brereton, Robert L., 206 N. Clay Ave. 63122
Bricker, Eugene M., 4989 Barnes Hospital Plaza 63110
Bricker, Neal S., 660 S. Euclid 63110
Brielmaier, Charles R., 1535 N. Woodlawn 63122
Brinker, Ray A., 510 S. Kingshighway 63110
Brodeur, Armand E., 141 Horseshoe Dr., Sugar Creek Ranch 63122
Bronson, Shael S., 100 N. Euclid 63108
Brookes, Robert D., 5505 Delmar 63112
Broun, Goronwy O., 1325 S. Grand 63104
Broun, Goronwy O., Jr., 6359 Waterman 63105
Brown, E. Eugene, 7508 Cromwell Dr. 63105
Brown, James B., 710 S. Hanley Rd. 63105
Brown, James M., 11936 Beth Dr. 63126
Brown, Michael W., 100 N. Euclid 63108
Brown, Richard M., 1736 Canary Cove 63144
Brown, Seymour, #2 Ricardo La. 63124
Bruce, Helen L., 3263 Hawthorne Blvd. 63104
Brugger, Thomas, 369 N. Taylor Ave. 63108
Bruns, Kenneth, 6318 Washington 63130
Bryan, James H., 950 Francis Pl. 63105
Bryan, William T. K., 950 Francis Pl. 63105
Budd, John J., Jr., 9313 Manchester 63119
Bugg, George W., 250 Ardennes Circle, Ft. Ord, Calif. 93941
Burford, Cyrus E., 6655 Waterman 63131
Burford, Thomas H., Barnes Hospital Plaza 63110
Burke, Robert J., 6379 Devonshire 63109
Burkhart, Charles A., 1501 Locust St. 63103
Burkhart, Edward F., 141 N. Meramec 63105
Burks, Jess E., 3809 N. Union Blvd. 63115
Burmeister, R. William, 10834 Forest Circle Dr. 63128
Burns, Francis J., 4660 Maryland 63108
Burst, Donald O., 6500 Chippewa 63109
Burton, Forrest Dale, c/o Mr. Burton, Wellington, Ill. 60973
Busch, Anthony K., 275 Union Blvd. 63108
Bussmann, Donald W., 4 Wood Acre Rd. 63124
Butcher, Harvey R., Jr., 4960 Audubon 63110
Byars, Louis T., 100 N. Euclid 63108
Byrne, John E., 3720 Hampton Ave. 63109
Caciolo, Carlo, 3654 S. Grand Blvd. 63118
Cadice, John B., 10416 St. Ives Dr. 63136
Calkins, Delevan, 7828 Delmar Blvd. 63130
Callahan, Joseph D., 7227 St. Andrews Rd. 63121
Calodney, Martin M., 7247 Delmar 63105
Camel, H. Marvin, 310 Tanglewood Dr. 63124
Campbell, Cecil S., 812 Olive 63101
Campos, Francisco J., 100 N. Euclid 63108
Canaan, Samuel A., Jr., 6829 Clayton Ave. 63110
Cannon, Edward M., 607 N. Grand 63103
Cappel, Powel B., 27 Old Westbury 63119
Carlin, M. Richard, 100 N. Euclid 63108
Carr, Archie D., 3720 Washington 63108
Carranza, Mauro J., Medical Arts Bldg., Hillsboro 63050
Carroll, George A., 3720 Washington 63108
Carroll, Grayson, 3720 Washington 63108
Carson, Richard A., 4930 Sunstone Dr., Ballwin 63011
Carter, John F., 29 Berkshire 63117
Cary, John M., 5505 Delmar 63112
Casey, Edwin J., 4424 Hampton 63109
Cason, Elbert H., 4401 Hampton 63109
Cassel, Melvin A., 3400 N. Kingshighway 63115
Catalano, J. Denis, 12527 Roth Hill Dr., Maryland Heights 63042
Catanzaro, Anthony F., 2705 Clifton 63139
Catanzaro, Francis J., 1235 N. Hanley Rd. 63130
Catanzaro, Marshall J., HMR 1758 Hospital Keesler, Keesler AFB, Biloxi, Miss. 39534
Cavanagh, Denis, 1402 S. Grand Blvd. 63104
Chamness, James T., #1 St. Andrews Dr. 63124
Chaplin, Hugh, Jr., 509 S. Euclid 63108
Charles, Benjamin H., 5505 Delmar 63112
Charles, Cecil M., 911 S. Brentwood Blvd. 63105
Charnas, Raymond M., 607 N. Grand 63103
Cherre, Anthony J., 6744 Clayton Rd. 63117
Cherre, Charles J., 4511 Forest Park Blvd. 63108
Chesanow, Robert L., 1515 Lafayette Ave. 63104
Chieffi, Margaret, 3720 Washington 63108
Chou, Yen Ping, Robert Koch Hospital, Koch 63054
Ciapciak, Stanley J., 1502 St. Louis 63106
Clark, Clarence L., 705 Questover La. 63141
Claseman, Wilma W., 6154 Westminster Pl. 63112
Cleary, Frank, 1935 Park 63104
Cleveland, Horace F., 1325 Somerset Pl., Long Beach, Calif. 90807
Clithero, William H., 1763 Royal Oaks Dr., Royal Oaks Manor, Duarte, Calif. 91010
Cloyd, Mason D., 3800 Newark St. N.W., Washington, D. C. 20333
Coben, Lawrence A., 640 S. Kingshighway 63110
Cohen, Benjamin H., 138 N. Meramec 63105
Cohen, Hillard K., 500 Northwest Plaza, St. Ann 63074
Cole, William R., 1401 Lawnwood Dr., 63123
Collins, John A., 4960 Audubon Ave. 63110
Collodi, George A., 20 Southcote Dr. 63117
Comens, Phillip, 6651 Chippewa 63109
Comens, Ruth C., 8826 Woodfox Dr. 63127
Comerci, George D., 1465 S. Grand Ave. 63104
Conrad, Adolph H., Jr., 911 S. Brentwood Blvd. 63105
Conrad, Marshall B., 5505 Delmar 63112
Cook William R., Jr., 615 S. New Ballas Rd. 63141
Cooper, Henry T., 4401 Hampton Ave. 63109
Cooper, James F., 1245 Graham Rd., Florissant 63031
Cooper, Theodore, 5204 W. Cedar Lane, Bethesda, Md. 21104
Cooper, Thomas J., P.O. Box 11653, Clayton Branch 63105
Copher, Glover H., 600 S. Kingshighway 63110
Corday, Robert J., 1465 S. Grand 63104
Cordonnier, Justin, 4960 Audubon 63110
Correnti, Nicholas A., 100 N. Euclid 63108
Costa, Dominic V., 16 Hampton Village Plaza 63109
Costello, Cyril J., 100 N. Euclid 63108
Costello, Joseph P., Jr., 57 Berkshire 63117
Costen, William S., 5505 Delmar 63112
Cotlier, Edward, Dept. of Navy, Naval Hospital, Great Lakes, Ill. 60088
Coughlin, Bertrand D., 634 N. Grand 63103
Cox, Mary E., 4524 Forest Park Blvd., 63108
Coxe, William S., 600 S. Kingshighway 63110
Craig, Alan G., Barnes Hospital Plaza 63110
Crego, Clarence H., Jr., 35 N. Central 63105
Criscione, James R., 4273 Flora Pl. 63110
Criscione, James S., 114 Pryor, Apt. 893, Scott AFB, Ill. 62225
Crossman, Robert W., 1509 Holly Dr. 63119
Crotty, John P., 68 Goethals, Ft. Leonard Wood 65473
Crowell, Hugh C., 9764 Tesson Ferry Rd. 63123
Cuddihee, Robert E., Jr., 15th Ave & Lake St., San Francisco, Calif. 94118
Cunningham, E. J. Jr., 205 Craig Ave., Columbia 65201
Cutler, Harold M., 150 N. Meramec 63105
Czebrinski, Edward W., 3701 Grandel Sq. 63108
Daake, John W., 48 Portland Pl. 63108
Dahm, Charles H., Jr., 329 Meramec 63105
Dahms, Gustave, 1452 S. Grand 63104
Dalton, Arthur R., 35 N. Central 63105
Daman, George A., 6651 Chippewa 63109
Dames, Richard J., 15 York Dr. 63117
Danforth, William H., Barnes Hospital Plaza 63110
Danis, Peter G., 150 N. Meramec 63105
Danis, Richard K., 634 N. Grand 63103
Dankner, Arnold, 150 N. Meramec 63105
Dash, Ira, 1 Winding Brook Lane 63124
Dash, Udaya N., 6500 Chippewa 63109
Davie, Joseph, 4615 Lindell Blvd. 63108
Davis, David O., 510 S. Kingshighway 63110
Davis, Frank L., 6123 Westminster Pl. 63112
Davis, Martin W., 911 S. Brentwood Blvd. 63105
Deakin, Rogers, 4530 W. Pine Blvd. 63108
De Jesus, Alberto, 6029 Susanview Ct. 63123
Demko, William, 12214 Mentz Hill Rd. 63128
Denk, Alan F., 8537 Bryan 63117
Devine, John B., 85 Willmore Rd. 63109
Dewald, Paul A., 4524 Forest Park Blvd. 63108
Dewein, Edward G., 8220 Delmar 63124
Dick, Earl, 7454 Grant Village Dr. 63123
Dickerson, Omar B., 23555 Euclid Ave., Cleveland, Ohio 44117
Diemer, Peter A., 10165 Blue Coat, Fairfax, Va. 22030
DiLeo, Senatro W., Northland Medical Bldg. 63136
Dillard, Burl M., 150 N. Meramec Ave. 63105
Dmytryk, Eugene T., 141 N. Meramec 63105
Dodd, Robert B., 600 S. Kingshighway 63110
Dodge, Philip R., 500 S. Kingshighway, 63110
Doisy, Philip P., 325 N. Kirkwood Rd. 63122
Dolan, John T., Jr., 3915 Watson Rd. 63109
Domke, Herbert R., 1625 S. 14th St. 63104
Donaldson, Robert C., 915 N. Grand 63106
Donati, Robert M., 1325 S. Grand Blvd. 63104
Dorton, Robert K., 911 S. Brentwood Blvd. 63105
Doyle, Charles R., 634 N. Grand 63103
Drace, Charles C., Jr., 19 E. Lockwood 63119
Drake, William K., 145 Sumner Blvd., Collinsville, Ill. 62234

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Schwartz, Melvin M., 4511 Forest Park Blvd. 63108
Schwartzman, Bernard, 4511 Forest Park 63108
Seabaugh, Ottis D., 105 W. Lockwood 63119
Seabold, John A., 408 Mission Ct. 63130
Shatz, Burton A., 4910 Forest Park 63108
Sheffield, William, 135 W. Adams, Kirkwood 63122
Shobe, Frank O., 4500 West Pine Blvd. 63108
Silver, Bernd, 530 Warren 63130
Silverberg, Charles, 45 Rio Vista Dr. 63124
Simril, Wayne A., 100 N. Euclid Ave. 63108
Sisk, James C., 141 N. Meramec Ave. 63105
Skilling, David M., Jr., 5505 Delmar 63112
Skinner, John S., 31 Willow Hill Rd. 63124
Smit, Herbert M., 3720 Washington 63108
Smith, George E., 12629 Rott Rd. 63126
Sommer, Ross B., 100 N. Euclid 63108
Soto, Alberto A., 911 S. Brentwood Blvd., Clayton 63105
Spector, Gene W., 216 S. Kingshighway 63110
Speno, Angelo A., 11815 Point Oak Dr. 63131
Spitz, Milton A., 505 N. Lake Shore Dr., Chicago, Ill. 60611
Spoeneman, Marlin C., 7205 W. Florissant 63136
Staehle, Melvin E., 7124 Natural Bridge Rd. 63120
Stein, Harry J., 6917 W. Florissant 63136
Stein, Leonard P., 2618 Oregon 63118
Steiner, Alexander J., 3720 Washington 63108
Stephens, William A., 3720 Washington 63108
Sterling, John A., 1230 Kenmore Dr. 63122
Stevens, Robert W., 9311 Duenke Dr. 63137
Stewart, Frances H., 7161 Delmar 63130
Stickle, A. W., 135 W. Adams 63122
Strauchen, Gilbert W., No. 8 Knoll Lane, W. Key Largo, Fla. 33037
Stuart, Wallace, 3654 S. Grand 63118
Stuebner, Roland W., 1930 Palm St., Marco Island, Fla. 33937
Sullivan, Wm. Wallace, 424 Hill Dr. 63122
Susman, Irvin C., 216 S. Kingshighway 63110
Sutter, Richard A., 819 Locust St. 63101
Tashma, Sigmund, 904 Dalkeith 63132
Teiber, Frederick W., 3201 Washington 63103
Thiele, Belmont R., 10201 Thornwood Dr. 63124
Tobias, Norman, 634 N. Grand 63103
Tomlinson, William L., 1851 Candlewick Dr. 63131
Torin, Bernice A., 951 Old Bonhomme Rd. 63132
Treiman, Robert C., #7 Radnor Rd. 63131
Tremain, E. E., 2901 Big Bend 63117
Trueblood, Alva C., Jr., 325 N. Kirkwood Rd., 63122
Trunko, Leo, 1900 Telegraph Rd. 63125
Tsifutis, Argyrios, 8631 Rosalie Ave. 63144
Turner, James K., 35 N. Central 63105
Ulett, Pearl C., 54 Picardy La. 63124
Valach, Frank J., 1617 S. Brentwood Blvd. 63117
Vatterott, Paul B., 10300 St. Charles Rock Rd. 63114
Viers, Wayne A., 135 W. Adams 63122
Viraghaty, Julius Cyula, 58 Old State Rd., Glencoe 63038
Vitale, Anthony J., 7130 Natural Bridge Rd. 63134
Vitale, Nicholas S., 7130 Natural Bridge Rd. 63134
Vollmar, Clarence J., 8787 Big Bend 63119
Votaw, Robert E., 10 Warson Terr. 63124
Walker, Harvey, Jr., 35 N. Central 63105
Walker, Willard B., 35 N. Central 63105
Walter, William L., 135 W. Adams 63122
Walther, Roy A., Jr., #7 High Acres 63132
Wamsley, James R., 13046 Ferntrails La. 63141
Waters, E. B., Defiance 63341
Weber, Sol, 1755 S. Grand Ave. 63104
Weber, William K., 4323 Gladwyn Dr., Bridgeton 63044
Weinhaus, Robert S., 7165 Delmar 63130
Weisbrod, Wilfred B., 1805 Gravois 63104
Weisman, Renate D., 500 Northwest Plaza, St. Ann 63074
Weisman, Sol, 4652 Maryland 63108
Wenneker, Alvin S., 8112 Delmar 63130
West, Joseph W., 135 W. Adams 63122
Westrup, Ellsworth A., 8540 Big Bend 63119
Whitener, Miles C., 3109 Brown Rd. 63114
Whitener, Paul R., 3109 Brown Rd. 63114
Wiedershine, Leonard J., 4511 Forest Park Blvd. 63108
Windsor, Charles E., 4511 Forest Park 63108
Wissmath, Frank S., 35 N. Central Ave. 63105
Wittler, Harry A., 1919 Karlin Dr. 63131
Wolfe, Edward, 401 Delshire 63122
Wolff, Harold D., 4511 Forest Park Blvd. 63108
Womack, Granville J., 516 Broadmoor Dr. Chesterfield 63017
Wood, James A., 141 N. Meramec 63105
Wool, Gerald, 5247 C Broadway, Seattle, Wash. 98737
Wulff, George J. L., Jr., 5505 Delmar 63112
Wyatt, Lois C., 134 W. Adams 63122
Yanow, Mitchell, 141 N. Meramec 63105
Yap, Mardonio J. R., 7521 W. Florissant Ave. 63136
Zimmerman, Herbert B., 17 Spoede Woods 63141
Zwirn, Benjamin H., Northland Medical Bldg. 63136

SALINE COUNTY MEDICAL SOCIETY
(Marshall 65340)

Aiken, George A., Marshall
Blalock, Robert W., Marshall
Day, Anthony B., Marshall
Duffy, Adrian, Marshall
Duffy, Eileen, Marshall
Haynes, Robert C., Marshall
Knipschild, B. F., Marshall
Lawrence, John R., Marshall
McBurney, C. A., Slater 65349
McCorkle, E. Lee, Marshall
McCoy, Donald L., Marshall
Mead, Samuel T., Slater 65349
Raynor, Richard, Marshall
Reid, James A., Marshall
Roehrs, Marvin E., Marshall
Watson, Cecil L., Marshall

SCHUYLER COUNTY
(North Central Counties Medical Society)

SCOTLAND COUNTY
(Lewis-Clark-Scotland County Medical Society)

SCOTT COUNTY
(SEMO County Medical Society)

SEMO COUNTY MEDICAL SOCIETY
(Stoddard-New Madrid-Mississippi-Scott Counties)
(Sikeston 63801)

Bruce, Leo A., Sikeston
Buckthorpe, Thelma C., Sikeston
Cejas, Leandro P., Sikeston 63801
Colbert, Robert S., Sikeston
Comeau, Richard, Dexter 63841
Critchlow, William C., Sikeston
Davis, Wilbur L., Charleston 63834
Dunaway, Howard A., Sikeston
Du Pont, Jean-René, Sikeston
Ferguson, Wilson J., Sikeston
Finney, William O., Chaffee 63740
Frazier, Robert L., Charleston 63834
Heeb, Max A., Sikeston
Husted, George W., Parma 63870
Martin, Andrew D., Sikeston
Page, Jesse W., Sikeston
Parks, Stephen, Sikeston
Popp, Carl G., Sikeston
Rehm, Ralph, Bloomfield 63825
Rolwing, E. Charles, Charleston 63834
Sargent, Alden P., Sikeston
Sargent, John P., Sikeston
Sarno, Samuel M., Morehouse 63868
Shell, William C., Sikeston
Throgmorton, Howard B., Sikeston
Till, Bennie N., Dexter 63841
Tull, Frank, Sikeston
Urban, Edgar D., Sikeston
Waddle, Theodore L., Dexter 63840
Waltrip, Roy T., Jr., Sikeston
Whitaker, T. H., East Prairie 63845

SHANNON COUNTY
(Carter-Shannon County Medical Society)

SHELBY COUNTY
(Marion-Ralls-Shelby County Medical Society)

SOUTH CENTRAL COUNTIES MEDICAL SOCIETY
(Howell-Oregon-Texas-Wright-Douglas-Ozark Counties)

Callihan, Charles F., West Plains 65775
Coffee, Amos L., Willow Springs 65587
Cooper, Claude W., Thayer 65574
Denney, Richard W., Mountain Grove 65711
Dreyer, William F., Houston 65483
Fowler, Marvin L., West Plains 65775
Gentry, Marvin C., Ava 65608
Hasek, James A., Mountain Grove 65711
Hasek, O. Martin, Mountain Grove 65711
Miller, Harold W., Willow Springs 65587
Morgan, W. Thomas, Jr., West Plains 65775
Smith, C. Franklin, Willow Springs 65587
Smith, Rollin H., West Plains 65775
Spears, Joe L., Cabool, 65445
Tiffany, Delbert E., Mountain View 65548
Walker, Ambrose T., Mammoth Spring, Ark. 72554
Wall, Joe A., Houston 65483
Walton, Marion C., Mountain View 65548
Wiles, Jack N., West Plains 65775
Wilson, John E., 1504 E. Broadway, Columbia 65201

STODDARD COUNTY
(SEMO County Medical Society)

STONE COUNTY
(Ozarks Medical Society)

SULLIVAN COUNTY
(North Central Counties Medical Society)

TANEY COUNTY
(Ozarks Medical Society)

TEXAS COUNTY
(South Central Counties Medical Society)

VERNON COUNTY
(West Central Missouri Medical Society)

WARREN COUNTY
(Franklin-Gasconade-Warren County Medical Society)

WASHINGTON COUNTY
(Mineral Area County Medical Society)

WAYNE COUNTY
(Butler-Wayne-Ripley County Medical Society)

WEBSTER COUNTY MEDICAL SOCIETY
Bareis, Robert J., Marshfield 65706
Macdonnell, Thomas M., Marshfield 65706

WEST CENTRAL MISSOURI MEDICAL SOCIETY
(Bates-Cass-Cedar-St. Clair-Vernon Counties)
Allen, Claude J., Rich Hill 64779
Allen, William H., Nevada 64772
Barone, Paul L., Nevada 64772
Baska, Richard E., 2116 W. 49th, Shawnee Mission, Kan. 66205
Brownsberger, Robert H., Appleton City 64724
Collantes, Jose L., State Hospital #3, Nevada 64772
Davis, C. Braxton, Nevada 64772
Doggett, Sylvester, Sikeston 63801
Eklund, Alfred W., Pleasant Hill 64080
Ellett, William H., Appleton City 64724
Giesler, Donald H., Osceola 64776
Hansen, Arthur L., Butler 64730
Harms, James F., Nevada 64772
Haynie, William W., Butler 64730
Henry, Robert D., Harrisonville 64701
Jones, Edward S., Harrisonville 64701
King, Elbert R., Route 2, Boise, Idaho 83702
Lane, Jerald P., 424 S. Greensboro St., Carrboro, N. C. 27510
Langeluttig, Harry V., Jr., Nevada 64772
Long, Curtis W., Butler 64730
Long, David S., Harrisonville 64701
Lusk, Charles A., Jr., Butler 64730
Luter, Carter W., Butler 64730
McCann, Louis P., Nevada 64772
Magee, Robert L., El Dorado Springs 64744
Martin, Forrest L., Nevada 64772
Moody, Jackson C., Harrisonville 64701
Mullinax, Orr, St. Joseph 64501
Pascoe, James J., Nevada 64772
Pearse, Roy W., Jr., Nevada 64772
Pickens, E. Allen, 4370 Chateau de Ville Dr., St. Louis 63129
Richter, William B., Stockton 64785
Reed, G. H., Osceola 64776
Rinck, Edward C., Nevada 64772
Ronald, Douglas C., Butler 64730
Seevers, Ruth, Osceola 64776
Strobach, Robert L., Butler 64730
Thies, Jerome H., Osceola 64776
Torontow, U. John, Nevada 64772
Wheeler, Robert L., Harrisonville 64701
Wray, Rolla B., Nevada 64772

WORTH COUNTY
(Northwest Missouri Medical Society)

Component Society Meeting Dates

Audrain County Medical Society—third Tuesday of each month.
Andrew County Medical Society—meets only on call.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month at 7 p.m.
Buchanan County Medical Society—first Wednesday of each month.
Butler-Wayne-Ripley County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month, September through May.
Clay County Medical Society—fourth Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—fourth Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk-Dade County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Monday of each month.
Franklin-Gasconade-Warren County Medical Society—first Tuesday of each month at the St. Francis Hospital, Washington, at 7 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—March, May, October and December.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets first Wednesday of each month at 7:30 p.m.
Johnson County Medical Society—meets only on call.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m. at the Victory Cafe, Lexington.
Lewis-Clark-Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—fourth Tuesday of each month.
Marion-Ralls-Shelby County Medical Society—third Tuesday of each month, 7:30 p.m.
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Montgomery County Medical Society—meets only on call.
Morgan County Medical Society—meets only on call.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Northwest Missouri Medical Society (Nodaway-Holt-Atchison-Gentry-North)—second Thursday of each month.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month, September through June.
Pemiscot County Medical Society—second Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday of each month, September through May.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second Wednesday of each month, September through May.
St. Louis Medical Society—third Tuesday of each month, October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month, September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Webster County Medical Society—meets only on call.
West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

HEALTH SCIENCES LIBRARY

For Your Convenience—

New Members . . . Address Changes . . . Notes

This page is provided for your convenience in recording names and addresses of new members of your county society, address changes of members you know and other notations you may wish to make.

Woman's Auxiliary to MSMA

1969-1970 Officers, Directors and Committee Chairmen

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Mrs. Thomas Thale
351 Meadow Brook, Ballwin 63011
Second Vice-President
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4425 Larson, Kansas City 64133
Third Vice-President
Mrs. James R. Nakada
2 Huntleigh Downs, Frontenac 63131
Fourth Vice-President
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1205 Fieldcrest, Columbia 65201
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2105 Lovers Lane, St. Joseph 64505
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No. 6 Catawba Place, Washington 63090
Auditor
Mrs. Wm. H. Hickerson
4207 S. Crysler, Independence 64050
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Mrs. Donald McCoy
40 East Mission, Marshall 65340
Parliamentarian
Mrs. Jordan Kelling
Waverly 64096

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Ninth District
Mrs. Claude Cooper
Thayer 65574
Tenth District
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Archives
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Bylaws
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Children and Youth
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424 N.W. Briarcliff Rd., Kansas City, N. 64116
Community Service
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Concordia 64020
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Editor, "Mo. Doctor's Wife"
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2221 Northwest Extension, St. Joseph 64506
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2278 Englewood, Springfield 65804
Historian
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2845 Southern Hills, Springfield 65804
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Mrs. Doyle C. McCraw
Bolivar 65613
Legislation
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205 E. Royle, Richmond 64085
Medicine & Religion
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Mental Health
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Program
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2 Huntleigh Downs, Frontenac 63131
Rural Health
Mrs. C. B. Schoeberl
3111 E. 4th, Joplin 64801
Safety and Disaster Preparedness
Mrs. C. W. Chastain
Highway F, Farmington 63640

FALL CONFERENCE—October 29-30, 1969—Ramada Inn, Jefferson City

SPECIAL COMMITTEES

Nominations
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3110 Douglas, St. Joseph 64506
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6216 Lindenwood Court, St. Louis 63109
Mrs. J. Otto Lottes
1028 Winwood Dr., St. Louis 63124
Mrs. Hugh Brady
Concordia 64020
Mrs. C. Stuart Exon
916 Boonville Rd., Jefferson City 65101
Reading Committee
Mrs. William M. Walker, *Chairman*
2845 Southern Hills, Springfield 65804
Mrs. James W. Terry
2530 Jonquil, Cape Girardeau 63701
Mrs. C. Stuart Exon
916 Boonville Rd., Jefferson City 65101
Jewelry
Mrs. Marshall T. Metzgar
1205 Fieldcrest, Columbia 65201

MSMA ADVISORY COUNCIL

David N. Kerr, M.D.
950 Francis Pl., St. Louis 63105

Gerald L. Miller, M.D.
4706 Broadway, Kansas City 64112

William D. Bradshaw, M.D.
Clinton 64735

ORGANIZED COUNTIES AND PRESIDENTS (COUNTIES LISTED ALPHABETICALLY)

Audrain
Mrs. David M. Rouse
1415 Hickory Hill, Mexico 65265
Buchanan
Mrs. Paul W. Hayes
610 North Noyes Blvd., St. Joseph 64505
Boone
Mrs. Leland U. Pfefer
2409 Bluff Blvd., Columbia 65201
Butler-Ripley-Wayne
Mrs. Robt. Engelhardt
1513 Rosedale Lane, Poplar Bluff 63901
Callaway
Mrs. William J. Cremer
State Hospital, Fulton 65251
Cape Girardeau
Mrs. John K. Holcomb
825 N. Fountain, Cape Girardeau 63701
Clay
Mrs. Wm. R. McPhee
1205 W. 76th, Kansas City 64114
Cole
Mrs. Byron E. Watts
2112 Forest Dr., Jefferson City 65101
Cooper
Mrs. Willard Avery
Boonville 65233
Dunklin
Mrs. Charles Cash
College St., Kennett 63857
Franklin-Gasconade-Warren
Mrs. Raymond J. Bozzo
No. 6 Catawba Pl., Washington 63090
Grand River
Mrs. Jack Vinyard
R.R., Carrollton 64633
Greene
Mrs. F. T. H'Doubler, Jr.
2445 Melbourne Rd., Springfield 65804
Jackson
Mrs. George J. Lytton
617 W. 49th, Kansas City 64112
Jasper
Mrs. Herbert J. Schmidt
820 N. Moffet, Joplin 64801
Jefferson
Mrs. Walter Judge
1004 Taylor, Crystal City 63019
Johnson
Mrs. A. L. Folkner
316 Hillcrest, Warrensburg 64093
Lafayette-Ray
Mrs. Jordan Kelling
Waverly 64096
Lincoln-St. Charles
Mrs. Earl Wipfler
124 S. Cardinal Lane, St. Charles 63301
Miller-Morgan-Moniteau
Mrs. Kenyon Latham
200 South High, California 65018
Mineral Area
Mrs. Charles Chastain
Highway F, Farmington 63640
Pettis
Mrs. John Brazos
R.F.D. 2, Sedalia 65301

Semo
Mrs. William Shell
Sikeston 63801
St. Louis City
Mrs. Benjamin F. Smith
104 Aberdeen, Clayton 63105
St. Louis County
Mrs. Allen P. Klippel
7112 Wydown Blvd., Clayton 63105
Saline
Mrs. Richard Raynor
758 S. Brunswick, Marshall 65340
South Central
Mrs. Martin Hasik
907 Short St., Mountain Crove 65711
West Central

AUXILIARIES AND COUNTY MEDICAL SOCIETIES LISTED BY DISTRICTS

FIRST DISTRICT: Andrew,* BUCHANAN, CLAY, Clinton,* GRAND RIVER (Caldwell, Carroll, Daviess, DeKalb, Grundy, Harrison, Linn, Livingston, Mercer), Northwest Missouri (Nodaway, Holt, Atchison, Gentry, Worth),* Platte.*

SECOND DISTRICT: Chariton-Macon-Monroe-Randolph,* Clark-Lewis-Scotland,* Marion-Ralls-Shelby,* North Central (Adair, Knox, Putnam, Schuyler, Sullivan).*

THIRD DISTRICT: ST. LOUIS CITY.

FOURTH DISTRICT: FRANKLIN-GASCONADE-WARREN, JEFFERSON, Lincoln-St. Charles, ST. LOUIS COUNTY.

FIFTH DISTRICT: AUDRAIN, BOONE, CALLAWAY, Camden,** COLE, COOPER, Howard,* MILLER-MORGAN-MONITEAU, Montgomery,* Osage.**

SIXTH DISTRICT: Benton,* Henry,* JOHNSON, LAFAYETTE-RAY, PETTIS, SALINE, WEST CENTRAL (Bates, Cass, Cedar, St. Clair, Vernon).

SEVENTH DISTRICT: JACKSON COUNTY.

EIGHTH DISTRICT: Barton,* Dallas-Hickory-Polk-Dade,* GREENE, JASPER, Ozarks** (Barry, Christian, Lawrence, McDonald, Newton, Stone, Taney),* Webster.*

NINTH DISTRICT: Carter-Shannon,* Mid-Missouri (Crawford, Dent, Laclede, Maries, Phelps, Pulaski),* SOUTH CENTRAL (Douglas, Howell, Oregon, Ozark, Texas, Wright).

TENTH DISTRICT: Bollinger,** BUTLER-RIPLEY-WAYNE, CAPE GIRARDEAU, DUNKLIN, MINERAL AREA (Iron, Madison, Reynolds, St. Francois, Washington), Pemiscot,* Perry-Ste. Genevieve, SEMO (Mississippi, New Madrid, Scott, Stoddard).*

CAPITALIZED COUNTIES—Organized Auxiliary.
* No organized Auxiliary.
** No Medical Society.

PAST STATE PRESIDENTS—1924-1969

Mrs. George H. Hoxie* (Jackson)**	1924-25
Mrs. M. P. Overholzer* (West Central)	1925-26
Mrs. Arthur B. McGlothlan (Buchanan)** 821 N. 24th, St. Joseph 64506	1926-27
Mrs. W. M. Bickford* (Saline)	1927-28
Mrs. Willard Bartlett, Sr. (St. Louis City) 53 Westmoreland Pl., St. Louis 63108	1928-29
Mrs. M. P. Ravenal* (Boone)	1929-30
Mrs. A. W. McAlester* (Jackson)	1930-31
Mrs. U. J. Busiek (Greene) 1635 E. Walnut, Springfield 65802	1931-32
Mrs. David S. Long (West Central) M. 40, Lake Lotawana, Lee's Summit 64063	1932-33
Mrs. Hudson Talbot (St. Louis City) St. Matthew Manor, 227 Brown's Lane, Louisville, Ky. 40207	1933-34
Mrs. W. H. Goodson* (Clay)	1934-35
Mrs. M. Pinson Neal* (Boone)	1935-36
Mrs. Walter C. Kirchner* (St. Louis City)	1936-37
Mrs. Charles H. Werner* (Buchanan)	1937-38
Mrs. Herbert L. Mantz (Jackson) 1209 Romany Rd., Kansas City 64113	1938-39
Mrs. Paul F. Cole (Greene) 1819 Main, Quincy, Ill. 62301	1939-40
Mrs. S. P. Howard* (Cole)	1940-41
Mrs. J. J. Drace (Cape Girardeau) 903 Bellevue, Cape Girardeau 63701	1941-42
Mrs. Frank L. Davis* (St. Louis City)	1942-43
Mrs. Robert C. Haynes (Saline) 754 Eastwood, Marshall 65340	1943-44
Mrs. J. B. McCubbin (Callaway) 531 E. 20th, New York, N. Y. 10010	1944-45
Mrs. Harry M. Gilkey* (Jackson)	1945-46
Mrs. W. E. Koppenbrink, Sr. (Lafayette-Ray) 1303 Main, Higginsville 64037	1946-47
Mrs. W. L. Allee* (Miller-Morgan-Moniteau)	1947-48
Mrs. August A. Werner* (St. Louis City)	1948-49
Mrs. John J. O'Connell (St. Louis County) 1937 O'Connell Ave., Overland 63114	1949-50
Mrs. Gretchen Van Del McClean (Jackson) 3510 Front St., San Diego, Calif. 92103	1950-51
Mrs. W. Carey Cheek (Greene) 1535 E. Meadowmere, Springfield 65804	1951-52
Mrs. Richard A. Sutter (St. Louis County)** 7215 Greenway Dr., University City 63130	1952-53
Mrs. C. Alex McBurney (Saline) 927 Hurt, Slater 65349	1953-54
Mrs. Wilfred E. Martin (Lafayette-Ray) 403 E. 2nd, Odessa 64076	1954-55
Mrs. Frank B. Leitz (Jackson) 308 W. 116th, Kansas City 64114	1955-56
Mrs. Charles T. Shepherd (St. Louis County) 10 Covington Meadows, St. Louis 63131	1956-57
Mrs. Armand D. Fries (St. Louis City) 11 W. Geyer Lane, St. Louis 63131	1957-58
Mrs. Henry C. Bauman (Nodaway-Holt-Atchison-Gentry-Worth) 929 W. 3rd, Maryville 64468	1958-59
Mrs. Stanley S. Peterson (Greene) 721 E. Stanford, Springfield 65804	1959-60
Mrs. Jordan Kelling (Lafayette-Ray) P. O. Box 171, Waverly 64096	1960-61
Mrs. Frederick E. Wade (Jackson) 413 W. 62nd, Kansas City 64113	1961-62
Mrs. J. Martyn Schattyn (St. Louis County) 9 Huntleigh Downs, Frontenac, St. Louis 63131	1962-63
Mrs. Lawrence S. Crispell (Jasper County) 911 Kensington, Joplin 64801	1963-64
Mrs. Delevan Calkins* (St. Louis City)	1964-
Mrs. Ralph Woods Bohnsack (Grand River) 635 Skyline Dr., Brookfield 64628	1964-66
Mrs. Wallace R. Stacey (Jackson) 3407 Shady Bend Dr., Independence 64052	1966-67
Mrs. John M. Williams (Clay) 616 Ridgeway Dr., Liberty 64068	1967-68
Mrs. E. F. Butler (Buchanan) 3110 Douglas, St. Joseph 64506	1968-69

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* Deceased.
** National President.

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Rouse, Mrs. David M., 1415 Hickory Hill
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(Columbia 65201)

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Allen, Mrs. Robert, Route 2, St. Charles Rd.
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Almond, Mrs. Carl, 213 W. Blvd. South
Amlinger, Mrs. Philip R., 118 W. Rollins Rd.
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Anderson, Mrs. Philip C., 908 Edgewood
Anderson, Mrs. Thomas R., 822 Yale
Arnold, Mrs. Richard C., 814 Yale
Asel, Mrs. Norman, 1112 S. Glenwood
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Black, Mrs. Samuel, 300 S. Glenwood
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Bruner, Mrs. Claude, 208 Edgewood
Buessler, Mrs. John A., 606 Longfellow Lane
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Bumgarner, Mrs. Roger, Route 1
Burns, Mrs. Thomas W., 310 E. Brandon Rd.
Bynum, Mrs. William R., 2606 Luan Court
Cartwright, Mrs. Robert, 605 Hulen
Chalkley, Mrs. Judson, 614 W. Stewart Rd.
Chapman, Mrs. C. Larry, 313 E. Briarwood Lane
Cheek, Mrs. Charles W., 1010 Yale
Cochran, Mrs. Donald, 112 Sappington
Cooper, Mrs. Maurice, 1000 Wayne Rd.
Cope, Mrs. James, Route 1, Rocheport 65279
Culley, Mrs. Thomas, 1506 University
Darnell, Mrs. Thomas F. B., 2617 Walther Ct.
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Denninghoff, Mrs. James C., 1906 Vassar
DeWeese, Mrs. Marion, 807 Stewart Rd.
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Hall, Mrs. John, 308 Hitt
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Harris, Mrs. Robert J., 2008 Hazelwood Dr.
Hart, Mrs. William, 109 Sappington Dr.
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Ide, Mrs. Carl, 600 Laurel Drive
Jackson, Mrs. Robert L., 1103 W. Stewart Rd.
Johnson, Mrs. Richard, 129 Taylor
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Kerr, Mrs. Earl S., 1308 Fieldcrest
La Chance, Mrs. Leopold, 324 S. Collier, Centralia 65240
Ladenson, Mrs. Roland, 704 Westmount
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Mackenzie, Mrs. James William, 509 Westmount
Marco, Mrs. Philip J., 1015 College Park Dr.
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Pingleton, Mrs. William, 113 Tracy Dr.
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Rikli, Mrs. Arthur E., 4003 Faurot Dr.
Rink, Mrs. Richard A., 209 Rothwell Dr.
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Smith, Mrs. J. Ned, Jr., 701 W. Boulevard S.
Smith, Mrs. Joe R., 222 E. Parkway
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Stephenson, Mrs. Hugh E., 1004 Falcon Dr.
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Thompson, Mrs. Ian M., 504 Edgewood
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Waggoner, Mrs. Charles, 712 Hilltop Dr.
Wakerlin, Mrs. George E., 3002 Bray Ave.
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Watson, Mrs. Trevor F., 2319 Bluff Blvd.
Wheeler, Mrs. Paul, 405 Thilly
Wilson, Mrs. George P., 918 Westwinds Dr.
Wilson, Mrs. Vernon, Route 1
Windmiller, Mrs. M. Eugene, 210 S. Glenwood
Wolcott, Mrs. Lester, 2417 Beachview Dr.
Wollschlaeger, Mrs. Paul, 1724 E. Broadway
Woodruff, Mrs. Calvin W., 1021 Lakeside Dr.

BUCHANAN COUNTY
(St. Joseph)

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Behcler, Mrs. Edward M., 34 Ridgeland Rd. 64505
Benson, Mrs. Scott C., 324 N. 6th 64501
Berney, Mrs. Francis J., 1225 N. 10th St. 64501
Bristow, Mrs. Robert B., 1610 Ashland 64506
Bryant, Mrs. Sydney L., 1805 N. 33rd 64506
Butler, Mrs. E. F., 3110 Douglas 64506
Callman, Mrs. George, State Hospital 64502
Carle, Mrs. H. W., Jr., 2707 N. 26th 64506
Carpenter, Mrs. G. T., 2612 Indian Trial Dr. 64506
Challener, Mrs. Wm. A., III, 3841 Maplewood Dr. 64506
Chiarottino, Mrs. Joseph F., 11 Lindenwood La. 64505
Christ, Mrs. Martin H., 414 Benton Dr. 64504
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DuMont, Mrs. Clement, 1905 Francis 64501
Durham, Mrs. S. L., Dearborn 64439
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Forgrave, Mrs. Leon Paul, Hundley Dr. 64506
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Hartigan, Mrs. F. X., 1801 Ashland 64506
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Herman, Mrs. Allen I., 1909 N. 32nd 64506
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Kline, Mrs. Edmund W., 17 Stonecrest 64506
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Luckinbill, Mrs. Paul, Plattsburg 64477
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Maginn, Mrs. R. L., 12 Wishbone Rd. 64506
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McDaniel, Mrs. John R., 1808 N. 29th 64506
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Meluney, Mrs. S. E., 1810 N. 30th 64506
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Mothershead, Mrs. John L., 2630 Fairleigh Terr. 64506
Ness, Mrs. Carl K., 8 Lindenwood La. 64505
O'Brien, Mrs. Liam, State Hospital, Box 263, 64502
O'Connor, Mrs. William B., 2316 N. 22nd 64505
Ozenberger, Mrs. Larry, West Grogan St., Plattsburg 64477
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Petersen, Mrs. Harold E., 2902 Frederick 64506
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Potter, Mrs. Thompson E., 2106 Lovers La. 64505
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Rogers, Mrs. John T., 2502 Ashland 64506
Rosenthal, Mrs. Irwin, 2715 Union 64506

Rost, Mrs. William B., 2221 Northwest Ext. 64506
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Shevlin, Mrs. Charles F., 804 N. 25th 64506
Sklenar, Mrs. Donald E., 3910 N. Belt Airway 64506
Smith, Mrs. Clifton, 2821 Ashland 64506
Stallard, Mrs. Donald J., 1417 N. 25th 64506
Stevens, Mrs. Edward, 2913 Joslin Lane 64506
Thomas, Mrs. Forrest, 1301 N. 25th 64506
Thompson, Mrs. F. Gregg, III, 2714 Ashland 64506
Tovar, Mrs. Manuel, 3209 Douglas 64506
Wadlow, Mrs. Ernest E., 2611 Lovers La. 64506
Waggoner, Mrs. Sharon E., 5820 S. 3rd 64504
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Whitsell, Mrs. Ora Earl, 2306 Sacramento 64507
Willman, Mrs. Charles, 2105 Lovers La. 64505
Willumsen, Mrs. Henry C., 2209 Eugene Field Ave. 64506

BUTLER-WAYNE-RIPLEY COUNTIES
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Biggs, Mrs. Fred J., 808 N. Main
Brookreson, Mrs. A. Davis, 700 Hendrix Dr.
Brookreson, Mrs. Alton F., PO Box 940
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Hecker, Mrs. J. E., 2019 Woodhaven
Hoja, Mrs. W. Alexander, Route 2, Box 16, P.P. Hwy.
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Markel, Mrs. A. D., Jackson Rd.
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McLain, Mrs. B. M., Route 2, Hwy. 67 So.
McLane, Mrs. Jerry F., 2107 Jackson Rd.
Miller, Mrs. David V., Hwy. 67 So., Route 5
Moffitt, Mrs. James B., 1406 Woodland
Parker, Mrs. Arthur C., Jr., 708 Selma
Post, Mrs. Cyril A., 960 Cynthia
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Ruff, Mrs. T. Eugene, 1411 Rosedale
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Tuma, Mrs. A. T., 1601 Big Bend Rd.
Turner, Mrs. William F., 1720 Big Bend Rd.
White, Mrs. Barry B., 935 Lester

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Cremer, Mrs. William J., State Hospital Dr.
Durst, Mrs. Henry, 1 Ivy Lane
Groce, Mrs. George, 1 Bartley Lane
Hill, Mrs. James E., Washington
Jackson, Mrs. Vernon, State Hospital Dr.
Osbourn, Mrs. Richard A., 503 Douglas Blvd.
Peterson, Mrs. Donald, State Hospital # 1
Ritterbusch, Mrs. James K., 2 Bartley Lane
Sydow, Mrs. Henry, 1014 Chippewa
Tuttle, Mrs. Jay F., 4 Reed
Wood, Mrs. George F., 1700 Plaza Dr.

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(Cape Girardeau 63701)

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Barnes, Mrs. Seth S., 1854 Broadway
Blankenship, Mrs. Dale, 907 W. Cape Rock Dr.
Burford, Mrs. Edwin K., 2424 Terrie Hill
Campbell, Mrs. Edward, 1100 N. Henderson
Chapman, Mrs. Jean Allen, 1150 N. Henderson
Cozean, Mrs. Charles, 1548 Oak Lei
Crowe, Mrs. John, 1000 N. Henderson
Dinkins, Mrs. James, 1714 Westridge
Elrod, Mrs. Dennis B., 2500 Fairlane
Estes, Mrs. Albert, Hwy. 61
Hall, Mrs. Frank, 6 Sylvan Lane
Holcomb, Mrs. John K., 825 N. Fountain
Hoxworth, Mrs. Gerald, 1624 Oxford
Jaeger, Mrs. Joseph, Shady Lane, Jackson 63755
Johnson, Mrs. Earl Wayne, 1044 N. Henderson
Kasten, Mrs. Melvin C., 1209 Sailor Circle
Keim, Mrs. J. Harry, 643 N. West End Blvd.
Kinder, Mrs. James, Route 1, Box 135
Kinder, Mrs. Jerry L., 753 Perry Ave.
Kratz, Mrs. Paul, 1720 Cecilia
Lovinggood, Mrs. Thomas, 2505 Allendale Dr.
Magaletta, Mrs. George, 957 Rodney Dr.
McDonald, Mrs. Eugene, 225 W. Main, Jackson 63755
McGinty, Mrs. Charles, 2435 Brookwood
Nunnelly, Mrs. Gordon, 1432 Themis
Nussbaum, Mrs. Paul, 209 Sunset Blvd.
Oehler, Mrs. William, 1617 Themis
Otto, Mrs. Thomas, 511 Alta Vista
Parsons, Mrs. Lery, Chateau Oaks
Rapp, Mrs. Harold, 1011 N. Henderson
Rawlins, Mrs. Fred, 1607 Bertling
Reynolds, Mrs. Garland, P. O. Box 817
Ridings, Mrs. Harold, 96 E. Cape Rock Dr.
Ritter, Mrs. Raymond, 1257 Rockwood
Seabaugh, Mrs. D. I. L., 922 W. Main St., Jackson 63755
Seabaugh, Mrs. Loy, 811 E. Rodney
Seabaugh, Mrs. William, Route 2, Box 563
Shoss, Mrs. Milton, Route 1
Sparkman, Mrs. Thomas, 1629 Oxford Dr.
Stewart, Mrs. Wendell K., 1935 Briarwood
Talbert, Mrs. Clifford R., 1947 Robin Hood Circle
Terry, Mrs. James W., 2530 Jonquil
Tygett, Mrs. Glenn, 834 Alta Vista
Tygett, Mrs. Joseph, 2112 Woodhaven
Wallwork, Mrs. J. Caleb, Illmo 63701
Weeks, Mrs. George, 1814 Scott's Lane
Williams, Mrs. W. A., Jr., 1236 Normal
Wilson, Mrs. Charles, Oak Lei Dr.
Wolff, Mrs. Paul, 90 E. Cape Rock Dr.

CLAY COUNTY
(Kansas City)

Adams, Mrs. Howard, 1472 Hemlock, Liberty 64068
Allen, Mrs. Louis, 5317 West 79th, Shawnee Mission, Kan. 66208
Allen, Mrs. S. Lloyd, 3809 W. 62nd Terr. N. 64151
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Bowles, Mrs. Richard, 414 N. Ridge, Liberty 64068
Burk, Mrs. E. K., 1 E. Briarcliff 64116
Castillo, Mrs. Michael E., 8601 N. Boone 64155
Chastain, Mrs. Maurice W., 3 E. 47th N. 64116
Chiles, Mrs. David R., 405 Maple, Smithville 64089
Devine, Mrs. Mark W., Jr., 7348 Brittany, Apt. 101, Shawnee Mission, Kan. 66203
Edwards, Mrs. Theodore F., 512 N.W. 43rd Terr. 64116
Fakhoury, Mrs. Donald A., 4332 N. Central 64116
Fischer, Mrs. Edward H., 4218 Briarcliff Lane 64116
Fotopoulos, Mrs. Chris K., 2917 Cheyenne Circle, North 64116
Fowler, Mrs. I. Charles, 700 E. Barnes Ave. 64118
Gauer, Mrs. Robert J., 525 N.W. 43rd Terr. 64116
Hall, Mrs. James W., 4606 N. Cleveland 64117
Hayes, Mrs. Lawrence L., 440 N. Woodland Dr. 64118
Hedges, Mrs. Richard C., 530 Elms Blvd., Excelsior Springs 64024
Hendren, Mrs. Glen W., 516 W. Franklin, Liberty 64068
Hendren, Mrs. Thomas H., Hwy. 33 North, Liberty 64068
Hobbs, Mrs. Earl B., Smithville 64089
Hodge, Mrs. Robert H., 2214 E. 39th North 64116
King, Mrs. Phillip, Route 1, Box 3A, Liberty 64068
Kirkland, Mrs. Jerry, 2865 N.E. 59th Terr. 64119
Knox, Mrs. Earl R., 115 E. 43rd St. North 64116
Kuenzi, Mrs. Donald E., 924 S. Woodland Dr. 64118
Langhus, Mrs. Melvin D., 104 W. Englewood Rd. 64118
Lindquist, Mrs. Paul A., 4925 N. Askew 64119
McCormick, Mrs. James E. 309 Northcrest Dr. 64116
McCracken, Mrs. S. R., 810 Old Orchard, Excelsior Springs 64024
McPhee, Mrs. William R., 1205 W. 76th 64114
Mullins, Mrs. B. L., Route 29 64155
Musgrave, Mrs. David E., 420 N. Kimball, Excelsior Springs 64024
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Waterman, Mrs. Franklin M., 420 Glendale Rd., Liberty 64068
Werner, Mrs. Dean F., 4609 N. Main 64116
Werner, Mrs. Franklin C., 422 Sagamore La. 64116
Williams, Mrs. John M., 616 Ridgeway Dr., Liberty 64068
Williams, Mrs. R. D., 506 Liberty Rd., Smithville 64089
Withrow, Mrs. John B., 3925 N. Main 64116
Wright, Mrs. Earl, 3509 N.9. 67th Terr. 64119

COLE COUNTY
(Jefferson City 65101)

Bregant, Mrs. Robert, Country Club Dr.
Cooper, Mrs. Charles Winston, 810 Jackson
Cox, Mrs. William A., 206 Swift's Highway
Dorris, Mrs. Richard P., 1611 Ridgewood
Doyle, Mrs. Matthew J., 2408 Livingston
Enloe, Mrs. L. David, 1200 Moreland
Exon, Mrs. C. Stuart, Boonville Rd.
Fullgrabe, Mrs. Emil A., 1914 Green Meadow Dr.
Garner, Mrs. Lynn M., 403 Meier Dr.
Gentry, Mrs. Merritt Logan, 405 Bel Air
Gordon, Mrs. James, 600 Boonville Rd.
Gove, Mrs. Herman S., 712 Broadway
Guhleman, Mrs. Henry V., Jr., 2018 Greenberry Rd.
Gurnee, Mrs. Landon H., 104 Westmore
Handler, Mrs. Fred P., 614 Boonville Rd.
Kanagawa, Mrs. Harold Hajime, 816 Houchin
Kelly, Mrs. Marshall W., 1616 Greenberry Rd.
Klebba, Mrs. Larry B., 3300 Country Club Rd.
Leslie, Mrs. James P. 933 Fairmount
Leslie, Mrs. James T., Jr., 1824 Brookside Blvd.
Loyd, Mrs. Earl L., 114 Binder Dr.
Matthews, Mrs. John I., 1310 Moreau Dr.
McHaney, Mrs. John W., Country Club Dr.
McKnelly, Mrs. William V., 1106 Lee
Meier, Mrs. Francis X., 1913 Hayselton Dr.
Meinershagen, Mrs. Charles W., 138 Forest Hill
Morgan, Mrs. Philip E., 2121 Cedar Hills Rd.
Ossman, Mrs. Julian A., 2407 West Main
Ringo, Mrs. Henry, Centertown 65023
Robb, Mrs. Harold P., 1117 Leslie Blvd.
Russell, Mrs. Joseph P., 1517 Greenberry Rd.
Ryan, Mrs. Thomas J., 1109 Moreau Dr.
Sanders, Mrs. Jack Shelby, 1820 Brookside Blvd.
Schmidt, Mrs. Jerome H., 806 Boonville Rd.
Scott, Mrs. David, 2928 Mohawk

Sennott, Mrs. John Stephen, 123 Douglas Dr.
Shull, Mrs. G. Donald, 1925 Hayselton Dr.
Stauffer, Mrs. Harry Beach, 800 Boonville Rd.
Stricker, Mrs. Harold C., 1205 Moreau Dr.
Sugarbaker, Mrs. Everett D., 2113 W. Main
Sui, Mrs. Kenneth C., 108 Belair Dr.
Summers, Mrs. Joseph S., Jr., 2313 W. Main
Tanner, Mrs. Robert H., 1910 Greenberry Rd.
Taylor, Mrs. Leon A., 1104 W. Main
Tietjen, Mrs. Fred C., 7 Greentree Rd.
Wallace, Mrs. John K., 220 Ridgeway
Watts, Mrs. Byron Edward, 2112 Forest Dr.
Winegar, Mrs. Alvon C., 222 Swift's Highway

COOPER COUNTY
(Boonville 65233)

Abele, Mrs. William Arved, Krohn Dr.
Avery, Mrs. Willard Bartlett, 20 Crestview
Beckett, Mrs. Theodore Cooper, 725 Fourth
Diekroeger, Mrs. Manuel Louis, Route 2
Hata, Mrs. Daikichi, 7 Morningside Dr.
Humphreys, Mrs. Edward Tristran, 1123 Third
Stuart, Mrs. Byron McClellan, 910 Shamrock Terr.
Winn, Mrs. George Warren, 607 Poplar
Zeigler, Mrs. William Henry, Weyland Dr.

DUNKLIN COUNTY
(Kennett 63857)

Benson, Mrs. Leo J. J., 204 Wiggs
Cash, Mrs. Charles, White Oak Place
Croom, Mrs. Wayne, 403 Stokes Blvd., Malden 63863
Dunmire, Mrs. George, 504 S. Baker
English, Mrs. W. D., Cardwell 63829
Hunt, Mrs. John L., Campbell 63933
Legan, Mrs. John K., 617 Butler
Miltenberger, Mrs. Paul E., 705 W. Washington
Morehead, Mrs. William E., 505 Beckwith, Malden 63863
Palenske, Mrs. R. L., Box 57, Hornersville 63855
Peck, Mrs. C. R., 234 S. Main
Pu, Mrs. Pin H., 1105 W. Eighth
Tarver, Mrs. Quinton, 1004 W. Washington
Zimmerman, Mrs. Joe A., 1105 Whiteoak Pl.

FRANKLIN-GASCONADE-WARREN COUNTIES

Baker, Mrs. Donald L., Route 1, Union 63084
Bonney, Mrs. Sam, Washington 63090
Bozzo, Mrs. Raymond J., 6 Catawaba Pl., Washington 63090
Brenner, Mrs. Paul A., 108 W. Washington Ave., Owensville 65066
Eisenmann, Mrs. Benjamin B., New Haven 63068
Evermann, Mrs. Walter, Warrenton 63383
Farrell, Mrs. S. L., 205 Elm, Washington 63090
Hoelscher, Mrs. H. F., Hickory Haven, Warrenton 63383
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Muench, Mrs. Ludwig O., 1530 Riverview Dr., Washington 63090
Richardson, Mrs. G. A., Union 63084
Richardson, Mrs. W. R., 301 Hwy. 50 West, Union 63084
Ryan, Mrs. J. B., Cedar St., Washington 63090
Schmidt, Mrs. Charles, Box 143, Gerald 63037

GRAND RIVER COUNTIES
(Caldwell-Carroll-Livingston-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb Counties)

Allen, Mrs. E. W., 1202 N. Jefferson, Carrollton 64633
Atcheson, Mrs. Windsor, 108 Kavanaugh, Trenton 64683
Bales, Mrs. Eugene, 502 W. 3rd Terr., Carrollton 64633
Bohnsack, Mrs. Ralph, 635 Skyline Dr., Brookfield 64628
Clark, Mrs. Chester, 13 Town & Country, Trenton 64683
Conrad, Mrs. Joseph, 1202 Jackson, Chillicothe 64601
Cross, Mrs. Albert, 1903 Moberly Rd., Trenton 64683
Daley, Mrs. Frank, 508 E. Sammuel, Hamilton 64644
Dixon, Mrs. John, 1005 Brookfield, Brookfield 64628
Dowell, Mrs. Donald, 1830 Calhoun, Chillicothe 64601
Ellsworth, Mrs. Willard, Cainsville 64632
Fair, Mrs. William, 1705 Calhoun, Chillicothe 64601
Fuson, Mrs. William, 520 Pleasant View, Trenton 64683
Gale, Mrs. Joseph, 1710 Polk, Chillicothe 64601
Gary, Mrs. George, 112 W. Houser, Marceline 64658
Gearhart, Mrs. Merriam, 2100 Beekman, Bethany 64424
Howell, Mrs. Billy, 157 Hunt, Brookfield 64628
Knapp, Mrs. Roger S., Cameron 64429
Mandler, Mrs. George, 1616 Clay, Chillicothe 64601
Platz, Mrs. John, 804 N. Main, Carrollton 64633
Smith, Mrs. Robert, 509 E. Houser, Marceline 64658
Todd, Mrs. Paul, 218 W. Chicago, Marceline 64658
Vandiver, Mrs. V. D., 1836 Polk, Chillieothe 64601
Vinyard, Mrs. Jack, RFD, Carrollton 64633
Wilson, Mrs. Fred K., Winston 64689

GREENE COUNTY
(Springfield)

Allen, Mrs. Jerry H., 1324 S. Fairway Terr. 65804
Anthony, Mrs. Dallas D., 1322 S. Pickwick 65804
Ash, Mrs. Charles J., 743 Riverside 65804
Ash, Mrs. Kenneth H., 2401 Ingram Mill Rd. 65804
Ashley, Mrs. Thomas E., 2740 Pythian 65802
Atkinson, Mrs. Thomas E., Route 9, Box 81A 65804
Auner, Mrs. Cecil R., 649 McCann 65804
Back, Mrs. Donald K., 2852 S. Glendale 65804
Bailey, Mrs. Alan, 2242 Barataria 65804
Baldwin, Mrs. Richard M., 2033 Prairie Lane 65804
Blades, Mrs. Ross, 2845 E. University 65804
Bonebrake, Mrs. McDonald D., 1443 S. Delaware 65804
Broaddus, Mrs. Loren, 2725 S. Patterson 65804
Broaddus, Mrs. Loren, 2017 So. Link 65804
Brown, Mrs. Lyman, 1410 N. Rogers 65802
Bruns, Mrs. Thomas, Jr., 2325 Mayfair Dr. 65804
Burkey, Mrs. Jordon W., 2405 Sheridan 65804
Busiek, Mrs. Urban J., 1635 E. Walnut 65802
Callaway, Mrs. Guy, Jr., 901 E. Portland 65804
Callaway, Mrs. Guy D., 1155 S. Delaware 65804
Cheek, Mrs. Anne C., 1535 E. Meadowmere 65804
Cheek, Mrs. James W., 910 E. University 65804
Christy, Mrs. Raymond A., 2738 S. Marlan 65804
Clarke, Mrs. Michael J., 2416 Brentwood 65804
Clary, Mrs. Wm. W., 2259 Mirabeau 65804
Clawson, Mrs. J. W., 2257 Rosebrier 65804
Clayton, Mrs. Edgar L., 2446 Brentwood 65804
Cochran, Mrs. Thomas E., 2423 Brentwood 65804
Coller, Mrs. Frederick B., 2433 Marlan 65804
Cook, Mrs. James R., 2258 Barataria 65804
Conrad, Mrs. Raymond C., 1338 S. Delaware 65804
Cordonnier, Mrs. James K., 1920 E. Greenwood 65804
Cox, Miss Eleanor, 1072 Roanoke 65804
Cunningham, Mrs. D. Dean, 1425 S. Delaware 65804
Dietz, Mrs. M. Wendell, 2540 Edgewater 65804
Dillard, Mrs. Erin M., 2530 S. Marlan 65804
Dolan, Mrs. Daniel L., 2413 Claremont 65804
Duncan, Mrs. Robert D., 1234 E. Loren 65804
Elkins, Mrs. Ronald F., 2830 E. Glenwood 65804
Ellis, Mrs. Francis J., 2235 E. Glenwood
Ellis, Mrs. Harry L., 2124 E. Edgewood 65804
Farthing, Mrs. F. R., 1234 E. Walnut 65802
Farthing, Mrs. Gene W., 1235 E. Walnut 65802
Ferguson, Mrs. J. Lynn, 1840 S. Weller 65804
Ferguson, Mrs. John P., 1219 S. Clay 65804
Ferguson, Mrs. Mary V., 1219 S. Clay 65804
Ferrell, Mrs. Thomas E., 1525 E. Meadowmere 65804
Fessenden, Mrs. Ersel M., 634 E. Kingsbury 65804
Fitch, Mrs. Max, 2523 S. Marlan 65804
Francis, Mrs. William C., 2820 E. Glenwood 65804
Freeman, Mrs. S. F., 1339 S. Pickwick 65804
German, Mrs. Walter A., Jr., 2659 Luster 65804
Giddings, Mrs. Frank C., 1211 S. Pickwick 65804
Glynn, Mrs. Robert R., 1101 Benton 65802
Gorelick, Mrs. David F., 1041 Linwood Terr. 65804
Gose, Mrs. Don F., 1339 S. Delaware 65804
Griot, Mrs. Mary J., 1640 E. Sunshine 65804
Hall, Mrs. David W., 2122 Wayland Dr. 65804
Hall, Mrs. Durward G., 2442 S. Fremont 65804
Hanan, Mrs. Ernest B., 724 E. Kingsbury 65804
Harcourt, Mrs. Keith, 2525 S. Westwood 65804
Harvey, Mrs. Harold D., 2531 Brentwood 65804
H'Doubler, Mrs. Alice, Route 7, Box 207 65802
H'Doubler, Mrs. Charles E., 1421 Bedford Rd. 65804
H'Doubler, Mrs. F. T., Jr., 2336 E. Glenwood 65804
H'Doubler, Mrs. Peter B., 1137 S. Pickwick 65804
Hollis, Mrs. Richard, 2236 Englewood Rd. 65801
Holmes, Mrs. Daniel E., 2115 S. Cedarbrook 65804
Holmes, Mrs. David R., 2237 E. Rosebrier 65804
Horton, Mrs. James D., 1235 E. Delmar 65804
Hulstra, Mrs. Han F. W., 2652 S. Luster 65804
Ivy, Mrs. H. Berry, 215 E. Sunshine 65804
Jameson, Mrs. James E., 1210 S. Weller 65804
Johnson, Mrs. George, 2349 Edgewood 65804
Johnson, Mrs. Warford B., 2244 Edgewood 65804
Johnson, Mrs. William F., 973 E. Linwood 65804
Johnston, Mrs. Joseph L., 2855 Southern Hills 65804
Jones, Mrs. Harold L., 2641 McCann 65804
Key, Mrs. James S., 2278 Englewood 65801
Klingner, Mrs. George M., Turners 65765
Klingner, Mrs. George M., Route 3, Box 202, Rogersville 65742
Knabh, Mrs. Kenneth E., 1229 E. Catalpa 65804
Langston, Mrs. W. Roland, 1453 S. Fairway 65804
Lemmon, Mrs. G. Bruce, 1462 Virginia 65804
Lewis, Mrs. Noel Rex, Route 9, Box 288 65804
Lockhart, Mrs. Charles E., 1600 E. Catalpa 65804
Loeb, Mrs. Richard, 2924 S. Barnes 65804
Lorenc, Mrs. Ernest, 2819 Canyon Dr. 65804
Lowe, Mrs. H. A., Jr., 1700 E. Walnut 65802
Lurie, Mrs. Harold H., 2440 Skyline Dr. 65804
Maple, Mrs. Francis M., 2115 E. Edgewood 65804
Maples, Mrs. Ruth, 836 E. Eastwood, Marshall 65340
McAlhany, Mrs. Howard J., 1643 E. Catalpa 65804

McKinsey, Mrs. John J., 2504 S. Franklin 65804
Menchetti, Mrs. Don E., 2049 Roanoke 65804
Michael, Mrs. Harvey R., 2847 S. Chantilly 65804
Milne, Mrs. Jay L., 1903 E. Meadow Drive 65804
Moore, Mrs. De A., U. S. Medical Center 65802
Moseley, Mrs. F. Thomas, 2837 Lomita Circle 65804
Napper, Mrs. Marvin L., Route 1, Ash Grove 65604
Neu, Mrs. Leo T., 3008 Carlisle Circle 65804
Overend, Mrs. Don S., 2218 Mirabeau 65804
Palcheff, Mrs. Chris L., Route 9, Box 400L 65801
Park, Mrs. William I., 815 E. Portland 65804
Parlato, Mrs. George, 2204 Shady Glen 65804
Penninger, Mrs. William H., 2246 Claiborne 65804
Peterson, Mrs. Stanley S., 721 E. Stanford 65804
Podrecca, Mrs. Guido I., 2550 Brentwood Blvd. 65804
Prater, Mrs. Bill George, 3000 Carlisle Circle 65804
Pruett, Mrs. Paul L., 1036 E. Sunshine 65804
Quinn, Mrs. Paul, 2857 Chantilly 65804
Robinson, Mrs. Gary L., 2117 E. Montclair 65804
Rosen, Mrs. Max, 900 E. Walnut 65806
Russell, Mrs. Earl D., 3213 Tan Bark Terr. 65804
Sala, Mrs. Jose M., 2901 Utica 65804
Schroff, Mrs. Carle H., 2448 E. Broadmoor 65804
Schwartz, Mrs. Eugene J., 1315 E. Loren 65804
Schweitzer, Mrs. Fred C., 2550 Luster 65804
Shackter, Mrs. Bruce I., 2534 Barataria 65804
Siceluff, Mrs. Joseph G., Route 9, Box 84M 65804
Silsby, Mrs. Don J., 932 S. Pickwick 65804
Simpson, Mrs. Albert P., 2202 Barataria 65804
Simpson, Mrs. E. L., 2133 Meadowview 65804
Snead, Mrs. William H., 2532 Sheridan 65804
Spalding, Mrs. David, 2971 Southern Hills Blvd. 65804
Stewart, Mrs. Robert B., 2360 E. Grand 65804
Stufflebam, Mrs. Robert E., 2323 E. Rosebrier 65804
Sturtevant, Mrs. Harwood N., 2859 Utica 65804
Tarrasch, Mrs. Ernest, 2114 Langston 65804
Terry, Mrs. James F., Jr., 2471 Sheridan 65804
Thomasson, Mrs. David D., 2311 E. Glenwood 65804
Tillman, Mrs. Walter W., 1220 E. Loren 65804
Tombridge, Mrs. T. L., 2830 S. Marlan 65801
Trotter, Mrs. W. Yates, 1243 E. Catalpa 65804
Turner, Mrs. Glenn O., 1462 S. Dollison 65804
Vensel, Mrs. Lee H., Jr., 2255 Meadowview 65804
Waddell, Mrs. Kenneth, 1126 S. Kentwood 65804
Wakeman, Mrs. J. Newton, 1402 Meadowmere 65804
Walker, Mrs. William M., 2845 S. Hills Blvd. 65804
Warres, Mrs. Herbert L., 2614 Englewood Rd. 65801
Webb, Mrs. Richard, 1243 E. Loren 65804
White, Mrs. R. Ned, Route 9, Box 600 65804
Williams, Mrs. John W., 2245 Fritts Lane 65804
Wilson, Mrs. Roy E., Route 9, Box 207 65804
Wise, Mrs. Gordon F., 2850 Southern Hills 65804
Wittmer, Mrs. Samuel C., 2314 E. Washita 65804
Wong, Mrs. George, Jr., 2908 E. Avalon 65804
Wood, Mrs. William W., Route 2, Box 101 65804
Wooldridge, Mrs. Wilfred E., 1126 E. Stanford 65804
Wyrsch, Mrs. Leo M., 2056 S. Meadowview 65804
Yancey, Mrs. Daniel L., 1133 S. Weller 65804
Zahn, Mrs. Robert, 1528 S. Fairway 65804

JACKSON COUNTY
(Kansas City)

Aaron, Mrs. George, 5840 Mission Dr., Shawnee Mission, Kan. 66208
Abella, Mrs. Terry K., 1103 W. 25th Terr., Independence 64052
Abrams, Mrs. Bernard M., 1021 W. 69th 64113
Adelman, Mrs. Arthur, 6305 Aberdeen, Shawnee Mission, Kan. 66208
Agee, Mrs. Loren Glenn, 7400 W. 101st, Shawnee Mission, Kan. 66212
Aks, Mrs. Daniel, 3100 W. 68th, Shawnee Mission, Kan. 66208
Alderman, Mrs. Thomas F., 309 E. 127th 64145
Allebach, Mrs. Hobart K. B., 4308 W. 93rd, Shawnee Mission, Kan. 66207
Allen, Mrs. Charles H., 616 W. Maple, Independence 64050
Allen, Mrs. William Bayne, 2801 W. 63rd, Shawnee Mission, Kan. 66208
Alsop, Mrs. Webb S., Jr., 3604 W. 53rd, Shawnee Mission, Kan. 66205
Altomare, Mrs. Edward P., 1030 W. 65th St. 64113
Altringer, Mrs. Arthur N., 5630 Mission Dr., Shawnee Mission, Kan. 66208
Ammatelli, Mrs. F. J., 1235 W. 57th Terr. 64113
Anderson, Mrs. Raymond B., 6024 State Line, Shawnee Mission, Kan. 66208
Anderson, Mrs. Richard W., 1001 Romany Rd. 64113
Andrus, Mrs. Bailey C., 6508 Overbrook Rd., Shawnee Mission, Kan. 66208
Arbab, Mrs. Ali A., 7840 Dearborn Dr., Shawnee Mission, Kan. 66208
Arms, Mrs. Arnold V., 6421 High Dr., Shawnee Mission, Kan. 66208
Aschmann, Mrs. T. H., 8740 Brooklyn 64130
Asher, Mrs. A. Graham, 5410 State Line Rd., Shawnee Mission, Kan. 66208
Atcheson, Mrs. Bellfield, 6524 Overhill Rd, Shawnee Mission, Kan. 66208
Atwell, Mrs. Floyd C., 630 W. 60th Terr. 64113
Bachman, Mrs. Paul L., 1206 W. Truman Rd., Independence 64050
Baer, Mrs. Alvin J., 5800 Howe Dr., Shawnee Mission, Kan. 66205
Baker, Mrs. Philip J., 11440 E. 47th St. 64133
Ballard, Mrs. V. Bryce, 6618 Rainbow, Shawnee Mission, Kan. 66208
Bare, Mrs. Chester I., 10501 E. 78th Terr. 64133
Barelli, Mrs. Pat A., 5609 Mission Dr., Shawnee Mission, Kan. 66208
Barloon, Mrs. James H., 612 E. 66th 64131
Barnard, Mrs. John L., 825 W. 52nd 64112
Barnett, Mrs. Gordon P., 6568 High Dr., Shawnee Mission, Kan. 66208
Barry, Mrs. John W., 5510 W. 84th, Overland Park, Kan. 66204
Barry, Mrs. William B., Sulgrave Apts., 122 W. 48th 64112
Basantz, Mrs. Fernando V., 3418 W. 77th Terr., Shawnee Mission, Kan. 66208
Bass, Mrs. Walter R., 6415 Sterling 64133
Bay, Mrs. Merrill R., Woods Chapel Rd., Blue Springs 64015
Beck, Mrs. Calvin E., 6432 High Dr., Shawnee Mission, Kan. 66208
Becker, Mrs. Rolfe A., 6501 Wenonga Rd., Shawnee Mission, Kan. 66208
Bell, Mrs. William F., 307 Lakeview, Lee's Summit 64063
Bennett, Mrs. J. D., 3216 W. 69th, Shawnee Mission, Kan. 66208
Benoit, Mrs. Hector W., Jr., 2501 W. 64th Shawnee Mission, Kan. 66208
Berenson, Mrs. Sheldon E., 832 W. 63rd 64113
Bernreiter, Mrs. Michael, 1246 W. 63rd 64113
Berry, Mrs. G. Neill, 5650 High Dr., Shawnee Mission, Kan. 66208
Berry, Mrs. Maxwell G., 5020 Summit 64112
Biggs, Mrs. Alfred D., Jr., 6551 Wenonga Terr., Shawnee Mission, Kan. 66208
Bikales, Mrs. Victor W., 5810 High Dr., Prairie Village, Kan. 66208
Bills, Mrs. Marvin L.. 3309 W. 68th, Shawnee Mission, Kan. 66208
Black, Mrs. Eugene C., 3201 W. 67th, Shawnee Mission, Kan. 66208
Blim, Mrs. Richard Don, 2209 W. 68th, Shawnee Mission, Kan. 66208
Bohan, Mrs. Peter T., 4545 Wornall Rd. 64111
Bordy, Mrs. Marvin D., 1911 Romany Rd., Shawnee Mission, Kan. 66208
Borenstine, Mrs. Joseph, 7307 Holmes 64131
Botwin, Mrs. Arnold E., 6010 Cherokee Dr., Shawnee Mission, Kan. 66205
Bourke, Mrs. Timothy S., 601 E. Meyer Blvd. 64131
Bowser, Mrs. John F., 3701 Madison 64111
Boyd, Mrs. George K., 4810 W. 80th, Shawnee Mission, Kan. 66208
Boylan, Mrs. Peter C., 6121 W. 90th Terr., Shawnee Mission, Kan. 66207
Braby, Mrs. Howard, 512 Linwood Terr., Independence 64050
Brams, Mrs. Jack B., 5050 Oak 64112
Braverman, Mrs. Abe Elliott, 2701 W. 68th, Shawnee Mission, Kan. 66208
Brown, Mrs. Adrian J., 12 E. 63rd 64113
Brown, Mrs. Menzie H., 7621 Colonial Dr., Prairie Village, Kan. 66208
Brown, Mrs. William R., 8717 Rosewood Dr., Shawnee Mission, Kan. 66207
Brumm, Mrs. L. W., 7421 Wyoming 64114
Bruner, Mrs. Robert, 14909 Little Blue Rd. 64136
Brust, Mrs. Carl H., 6114 Howe Dr., Shawnee Mission, Kan. 66205
Buckner, Mrs. Robert C., 3507 W. 87th, Leawood, Kan. 66206
Budke, Mrs. Harold A., 1219 W. 66th Terr. 64113
Buhler, Mrs. Victor B., 5212 Bellview 64112
Bunting, Mrs. Williston P., 1231 W. 62nd 64113
Burch, Mrs. Buford H., 3734 Locust, Apt. 27, 64109
Burry, Mrs. V. Fred, 5213 Scranton Dr. 64133
Butcher, Mrs. Robert W., 1101 W. 86th Terr. 64114
Byers, Mrs. Philip, 5832 High Dr., Shawnee Mission, Kan. 66208
Caffrey, Mrs. Raymond J., 1314 W. Red Bridge Rd. 64114
Caldwell, Mrs. John K., 436 E. 65th Terr. 64131
Campbell, Mrs. Frederick B., 1032 W. 55th 64113
Capps, Mrs. Eugene C., 6420 High Dr., Shawnee Mission, Kan. 66208
Carlson, Mrs. Hjalmar E., 2709 W. 66th Terr., Shawnee Mission, Kan. 66205
Carmichael, Mrs. Francis A., 5841 High Dr., Shawnee Mission, Kan. 66208
Caruso, Mrs. Alfred A., 2018 W. 70th Terr. Shawnee Mission, Kan. 66208
Casady, Mrs. Gilbert N., 9830 Aberdeen Dr., Shawnee Mission. Kan. 66206
Case, Mrs. William F., 10208 Oakridge Dr., Shawnee Mission, Kan. 66208
Casford, Mrs. Ralph, 1236 W. 72nd 64114
Chambers, Mrs. James Q., Jr., 5500 Belinder Ave., Shawnee Mission, Kan. 66205
Chambers, Mrs. James Q., Sr., 4600 J. C. Nichols Parkway, Park Lane Hotel, Apt. 201 64112
Childs, Mrs. Richard M., 5325 Mission Woods Terr., Shawnee Mission, Kan. 66205
Clark, Mrs. Irving H., 2811 Blue Ridge Ext., Grandview 64030
Cochrane, Mrs. Joseph J., 3301 W. 68th, Shawnee Mission, Kan. 66208
Cockerell, Mrs. Sanford F., 3501 S. Crysler, Independence 64050
Coffey, Mrs. Ralph R., 5211 Wornall Rd. 64112
Cohen, Mrs. Harry K., 417 W. 70th 64113
Colom, Mrs. George A., 4002 W. 56th Shawnee Mission, Kan. 66205
Connell, Mrs. Evan S., 837 W. 58th Terr. 64112
Cox, Mrs. Kenneth E., 5640 Pembroke La., Prairie Village, Kan. 66208
Cox, Mrs. William L., 1465 Spruce Ave., Liberty 64068
Culbertson, Mrs. William F., 1253 Huntington Rd. 64113
Curiel, Mrs. Manuel S., 1272 W. 72nd 64114
Curran, Mrs. Desmond, 6626 Wenonga Terr., Prairie Village, Kan. 66208
Curts, Mrs. Calvin J., 808 W. 67th Terr. 64113
Dalton, Mrs. Timothy, 11841 Oak 64113
Davidson, Mrs. Ken C., 9700 Wenonga Rd., Leawood, Kan. 66206

Davis, Mrs. Donald R., 2501 W. 67th, Shawnee Mission, Kan. 66208
Davis, Mrs. Herbert V., 4601 Holmes 64110
Davis, Mrs. Jack M., 7110 Harecliff Dr. 64133
Davis, Mrs. Richard E., 2300 Drury Lane, Shawnee Mission, Kan. 66208
Davis, Mrs. Robert C., 659 W. 61st Terr. 64113
Demott, Mrs. John D., 4402 Homestead Dr., Prairie Village, Kan. 66208
Demotte, Mrs. John A., 1247 W. 56th 64113
Dempsey, Mrs. Herbert A., 806 Chestnut, Lee's Summit 64063
Dennie, Mrs. Charles C., 2600 Verona Rd., Shawnee Mission, Kan. 66208
Dixon, Mrs. V. L., 2501 W. Paseo 64108
Dlabal, Mrs. L. J., 3729 Blue Ridge Blvd., Independence 64052
Doane, Mrs. William L., 1102 130th St., Grandview 64030
Dodge, Mrs. Mark, 5820 State Line Rd., Shawnee Mission, Kan. 66208
Dolezal, Mrs. Joseph B., 7928 Outlook, Prairie Village, Kan. 66208
Dorsch, Mrs. E. H., 3807 Woodland, Independence 64052
Downey, Mrs. James W., 6218 W. 64th Terr., Shawnee Mission, Kan. 66208
Drake, Mrs. Roy F., 6600 Outlook, Shawnee Mission, Kan. 66202
Drisko, Mrs. Robert M., 2100 Stratford Rd., Shawnee Mission, Kan. 66208
Durnell, Mrs. Monaford D., 308 Lincolnwood Dr., Lee's Summit 64063
Edmonds, Mrs. D. D., 9009 Mission Rd., Leawood, Kan. 66206
Eiseman, Mrs. Gustave, 6520 Overhill Rd., Shawnee Mission, Kan. 66208
Elias, Mrs. David J., 10311 Sheley Rd., Independence 64052
Elliott, Mrs. R. Glen, 6136 Reinhardt Dr., Shawnee Mission, Kan. 66205
Elser, Mrs. Otto H., 604 Rankin Rd., Independence 64050
Engelking, Mrs. David F., 6504 Claremont, Raytown 64133
Engelmann, Mrs. Calvin E., 4916 W. 57th Terr., Shawnee Mission, Kan. 66205
Eshelman, Mrs. A. D., 12116 E. 46th 64133
Etzenhouser, Mrs. Merrill, 1215 W. 35th Terr., Independence 64050
Etzenhouser, Mrs. Russell D., 1317 W. College, Independence 64050
Eubank, Mrs. Dillard M., 6020 Elm 64133
Eubank, Mrs. Will R., 6113 Lane 64133
Eubank, Mrs. William Y., 1020 W. 60th Terr. 64113
Evans, Mrs. Lawrence, 1240 W. 69th Terr. 64113
Farley, Mrs. Claude C., 3312 W. 87th, Leawood, Kan. 66206
Farney, Mrs. Jacob P., 2721 W. 69th Shawnee Mission, Kan. 66208
Farnsworth, Mrs. Jesse J., 5608 Fairway, Shawnee Mission, Kan. 66205
Feierabend, Mrs. Frank L., 7345 Wyoming 64114
Ferguson, Mrs. Eugene H., 333 W. Meyer Blvd., Apt. 504 64113
Ferguson, Mrs. James T., 718 E. Armour 64109
Ferris, Mrs. Carl R., 629 W. 70th Terr. 64113
Finkle, Mrs. Robert H., 3010 Sterling, Independence 64052
Fitzgerald, Mrs. Robert H., 2700 W. 69th, Shawnee Mission, Kan. 66208
Flanders, Mrs. Horace F., 3820 W. 65th Terr., Shawnee Mission, Kan. 66208
Flanders, Mrs. Virgil, 2022 W. 91st, Leawood, Kan. 66206
Flately, Mrs. John A., 827 Huntington Rd. 66413
Flynn, Mrs. James F., 5720 High Dr., Shawnee Mission, Kan. 66208
Folck, Mrs. William P., 5804 Linden Rd., N.W., Parkville 64152
Forman, Mrs. Louis H., 2801 W. 67th, Shawnee Mission, Kan. 66208
Forsythe, Mrs. Robert W., 6457 Verona Rd., Shawnee Mission, Kan. 66208
Foster, Mrs. Hal, 5050 Oak, Apt. 1028 64112
Fouts, Mrs. Dallas, Sr., 3624 S. Harris, Independence 64052
Fowler, Mrs. Fred D., 1231 W. 56th 64110
Fowler, Mrs. James, 200 W. 53rd Terr. 64112
Fredeen, Mrs. Robert C., 5437 Canterbury Rd., Shawnee Mission, Kan. 66205
Frick, Mrs. J. Paul, 116 Huntington Rd. 64113
Friedman, Mrs. Morris L., 2516 W. 69th, Shawnee Mission, Kan. 66208
Fritzlen, Mrs. Thomas J., 825 W. 63rd 64113
Fuhrman, Mrs. Donald L., 3417 W. 68th, Prairie Village, Kan. 66208
Fulton, Mrs. Albert E., 9501 Madison Ave. 64114
Fury, Mrs. Tex E., 642 Huntington Rd. 64113
Gainey, Mrs. Harold L., 4907 Sunset Dr. 64112
Galbreath, Mrs. A. M., 8419 W. 89th, Overland Park, Kan. 66212
Ganley, Mrs. Wm. Coyle, 8400 Overhill Dr. 64138
Gard, Mrs. Raymond F., 11530 Winner Rd., Independence 64052
Garrison, Mrs. Roy R., 404 W. 67th Terr. 64113
Geha, Mrs. Braham J., 4 Wyklow 66207
Geiger, Mrs. W. A., Jr., 3506 W. 92nd Terr., Leawood. Kan. 66206
Gibson, Mrs. David M., 5318 Sunset Dr. 64112
Gilkey, Mrs. Harry M., 4941 Westwood Rd. 64112
Gillen, Mrs. Billy A., 6500 Maple Dr., Mission, Kan. 66222
Gillmor, Mrs. C. Stewart, 420 E. Armour 64109
Ginardi, Mrs. Donald E., 4615 Gennessee 64112
Ginsberg, Mrs. Norman A., 1220 W. 67th 64113
Gist, Mrs. W. W., 1208 W. 59th 64113
Goldman, Mrs. Stanley, 5734 Windsor Dr., Shawnee Mission, Kan. 66205
Goldsich, Mrs. Edward, 5115 W. 81st, Prairie Village, Kan. 66208
Goldstein, Mrs. Marvin F., 400 E. 91st 64131
Goodson, Mrs. W. H., Jr., 815 W. 59th 64113
Goolsbee, Mrs. Robert, 6438 Sagamore, Shawnee Mission, Kan. 66208
Gordon, Mrs. Morris P., 10527 Walnut Dr. 64114
Gottsch, Mrs. Joseph C., 7904 Granada, Prairie Village, Kan. 66208
Grakske, Mrs. Charles F., 14203 Kentucky Rd., Independence 64050
Graham, Mrs. Wallace H., 5157 Ward Pkwy. 64112
Green, Mrs. John R., 3424 Norton, Independence 64052
Green, Mrs. John Richard, 3143 Santa Fe Terr., Independence 64052
Greene, Mrs. W. Wallace, 2008 W. 68th Shawnee Mission, Kan. 66208
Gregory, Mrs. Ralph, 5343 W. 100th, Overland Park, Kan. 66207
Griffith, Mrs. John A., Jr., 6500 Granada Dr., Shawnee Mission, Kan. 66208
Growdon, Mrs. John A., 1207 Stratford Rd. 64113
Gullett, Mrs. Charles C., 8815 W. 72nd Terr., Shawnee Mission, Kan. 66204
Gundle, Mrs. Sigmund, 8403 Somerset, Shawnee Mission, Kan. 66207
Habib, Mrs. Henry N., 440 E. 74th Terr. 64131
Hager, Mrs. David, 7523 Hawthorne, Raytown 64133
Haight, Mrs. John M., 5609 Blue Ridge Blvd. 64133
Halperin, Mrs. Phillip H., 1011 W. 56th 64113
Hamel, Mrs. Herbert A., 6441 High Dr., Shawnee Mission, Kan. 66208
Hamill, Mrs. Robert W., 6945 Nieman Rd., Shawnee Mission, Kan. 66203
Hamtil, Mrs. L. W., 10338 Ash, Overland Park, Kan. 66207
Hannas, Mrs. Ralston R., 1278 W. 59th 64113
Hardy, Mrs. H. M., 6606 Overhill Rd., Shawnee Mission, Kan. 66208
Hardy, Mrs. John W., 5501 Neosho Lane, Shawnee Mission, Kan. 66205
Harless, Mrs. Morris S., 6844 Cherry 64131
Harrin, Mrs. William R., 119 W. 116th 64114
Hartwig, Mrs. Fred H., 5204 Pawnee Dr., Shawnee Mission, Kan. 66205
Hartwig, Mrs. Raymond W., 3110 Tomahawk, Shawnee Mission, Kan. 66208
Hausheer, Mrs. Herman, 12900 36th Terr., Independence 64050
Haynes, Mrs. Solon E., 5306 Holmes 64110
Heilman, Mrs. Edward J., 6722 Kenwood 64131
Hellerstein, Mrs. Stanley, 6931 Edgevale 64113
Helman, Mrs. Richard G., 6540 Wenonga Rd., Shawnee Mission, Kan. 66208
Herrman, Mrs. George V., 701 Parkway Apts., 4545 Wornall 64111
Hibbard, Mrs. Blaine Z., 5211 Sunset Dr. 64112
Hickerson, Mrs. William H., 4207 S. Crysler, Independence 64050
Hill, Mrs. J. H., 8115 Meadow Lane Leawood, Kan. 66206
Hink, Mrs. Fred W., 524 Hardy, Independence 64053
Hoadley, Mrs. William D., 9625 Beverly, Shawnee Mission, Kan. 66212
Hodgson, Mrs. Frank H., 1049 W. 55th 64112
Hoech, Mrs. George P., Jr., 916 Glenhaven Circle, Liberty 64068
Hoeper, Mrs. Samuel D., 13009 12th, Grandview 64030
Hoffman, Mrs. J. S., 5820 Cherokee Dr., Shawnee Mission, Kan. 66205
Hollweg, Mrs. Kenneth C., 808 W. Meyer Blvd. 64113
Holton, Mrs. Edward B., 2817 Westport Rd., Independence 64052
Hook, Mrs. Waller G., 10010 Elmonte, Shawnee Mission, Kan. 66207
Hungate, Mrs. Carroll P., 6845 Oak 64113
Hunt, Mrs. Claude J., 615 W. 65th 64113
Hunt, Mrs. Thomas R., 5804 El Monte Dr., Shawnee Mission, Kan. 66205
Hunter, Mrs. Martin P., 4100 W. 93rd, Shawnee Mission, Kan. 66207
Hunzicker, Mrs. Warren J., 1248 Stratford Rd. 64113
Ingham, Mrs. Walton C., 9723 Overbrook Rd., Leawood, Kan. 66206
Irvine, Mrs. John, 2500 Red Bridge Terr. 64131
Irwig, Mrs. Fred, 5109 W. 87th, Shawnee Mission, Kan. 66207
Ise, Mrs. Frank A., 6700 W. 66th Terr., Overland Park, Kan. 66202
Jacob, Mrs. Walter P., 5301 W. 83rd. Terr., Shawnee Mission, Kan. 66207
Jacobs, Mrs. Morton, 6416 Verona Rd., Prairie Village, Kan. 66208
Jacobs, Mrs. Walter Harvey, 66656 Milhaven Dr., Shawnee Mission, Kan. 66202
James, Mrs. Otis E., Jr., 2810 W. 68th, Shawnee Mission, Kan. 66208
Jansen, Mrs. Robert, 440 E. 66th 64131
Jarvis, Mrs. James A., 600 W. 57th St. 64113
Jenab, Mrs. Morteza, Route 2, Box 171, Blue Springs 64015
Johnson, Mrs. Dallas A., 4111 W. 73rd Terr., Prairie Village, Kan. 66208
Johnson, Mrs. Joseph, 707 Montcrew Dr. 64114
Johnstone, Mrs. Paul N., 117 W. 69th Terr. 64113
Jonas, Mrs. Harry S., 11711 Markham Rd., Independence 64052
Jones, Mrs. Gale O., 6503 Summit 64113
Jones, Mrs. Samuel T., 9915 Cherokee Lane, Shawnee Mission, Kan. 66207
Jones, Mrs. T. Reid, 5927 Lockton La., Shawnee Mission, Kan. 66205
Justus, Mrs. John B., 5221 Howe Dr., Shawnee Mission, Kan. 66205
Kanarek, Mrs. Joseph, 6112 W. 87th Terr., Leawood, Kan. 66206
Kandt, Mrs. Ray E., Jr., 8900 Maple Dr., Overland Park, Kan. 66207
Kantor, Mrs. Julius M., 6708 High Dr., Shawnee Mission, Kan. 66208
Kantor, Mrs. Samuel, 3604 W. 87th, Leawood, Kan. 66206
Kaul, Mrs. Philip G., 5310 Mission Woods Rd., Shawnee Mission, Kan. 66205
Keeler, Mrs. James E., 422 E. Meyer Blvd. 64131
Kelling, Mrs. Douglas, 7230 Raytown Rd., Apt. C, Raytown 64113
Kendall, Mrs. Charles A., 658 Red Rd., Independence 64050
Kennard, Mrs. G. Keith, 3658 Madison 64111
Kent, Mrs. Bela, 5839 Cherokee Dr., Shawnee Mission, Kan. 66205
Kettner, Mrs. Edward G., 6510 Milhaven Dr., Shawnee Mission, Kan. 66202
Kiene, Mrs. Richard H., 5835 High Dr., Shawnee Mission, Kan. 66208
Kimball, Mrs. Merritt H., 610 E. 36th 64109
King, Mrs. Tenbrook, 8228 Linden Dr., Prairie Village, Kan. 66208

Kitchen, Mrs. W. M., 2700 W. 68th, Shawnee Mission, Kan. 66208
Klein, Mrs. E. H., 7011 Roe, Prairie Village, Kan. 66208
Knight, Mrs. John S., 5800 High Dr., Shawnee Mission, Kan. 66208
Knight, Mrs. Lyle B., 108 Madison La., Lee's Summit 64063
Knoch, Mrs. H. Kermit, 6606 Willow La., Shawnee Mission, Kan. 66208
Koontz, Mrs. Paul G., 301 W. 54th 64112
Korth, Mrs. William M., 6615 Overhill Rd., Shawnee Mission, Kan. 66208
Kranson, Mrs. Seymour J., 11 Hawthorne Pl., Independence 64052
Krueger, Mrs. Haven, 3608 W. 83rd Terr., Shawnee Mission, Kan. 66206
Kyger, Mrs. John E., 3612 Blue Ridge, Independence 64052
Lally, Mrs. James J., 800 W. 52nd Terr. 64112
Lamar, Mrs. Frederick C., 803 W. 48th, Apt. 12, 64112
Lamar, Mrs. Robert F., 800 W. 53rd Terr. 64112
Lambie, Mrs. Roger W., 10317 Grant Lane, Shawnee Mission, Kan. 66212
Lampton, Mrs. Lawrence, 204 W. 50th 64112
Landis, Mrs. George K., 10115 Pawnee La., Shawnee Mission, Kan. 66206
Lanning, Mrs. Richard J., 213 W. Greentree Lane 64116
Lapp, Mrs. Harry C., 638 W. 59th 64113
Latham, Mrs. Raymond W., 3008 W. 67th, Shawnee Mission, Kan. 66208
Lauer, Mrs. Daniel J., 8718 Cherokee Lane, Leawood, Kan. 66206
Layle, Mrs. John K., 4320 Wornall Rd. 64111
Layton, Mrs. Ira C., 1025 Greenway Terr. 64113
Lee, Mrs. Henry A., 9821 Sagamore Rd., Leawood, Kan. 66206
Leitch, Mrs. Cecil G., Route 2, Box 222, Blue Springs 64015
Leitz, Mrs. Frank B., 308 W. 116th 64114
Lemoine, Mrs. Albert N., Sr., 9200 High Dr., Leawood, Kan. 66206
Leo, Mrs. William A., 4505 W. 66th, Prairie Village, Kan. 66208
Lewis, Mrs. Revis C., 1001 W. 56th 64113
Lichtor, Mrs. Joseph M., 2109 W. 70th, Prairie Village, Kan. 66208
Lieberman, Mrs. B. Albert, Jr., 1229 W. 67th 64113
Lindquist, Mrs. Carl N., 6437 Hodges Dr., Shawnee Mission, Kan. 66208
Link, Mrs. Vance E., 1201 W. 36th, Independence 64050
Littlejohn, Mrs. Robert, 5215 W. 63rd Terr., Shawnee Mission, Kan. 66208
Long, Mrs. R. Staey, 3343 Blue Ridge Blvd., Independence 64052
Lowell, Mrs. Paul, 4742 Liberty 64112
Lytton, Mrs. George J., 617 W. 49th 64112
Maccubbin, Mrs. Don A., 4820 W. 81st, Shawnee Mission, Kan. 66208
Macnaughton, Mrs. Ralph E., 7317 High Dr. 66208
Mangels, Mrs. Kenneth A., Sr., 1103 W. 36th Terr., Independence 64050
Mantz, Mrs. Herbert L., 1209 Romany Rd. 64113
Marks, Mrs. Mark M., 6537 Summit 64113
Marshall, Mrs. C. F., 5510 Belinder Rd., Shawnee Mission, Kan. 66205
Martin, Mrs. Clyde V., 5531 E. Mission Dr., Shawnee Mission, Kan. 66208
Martin, Mrs. Daniel, 5611 W. 92nd Terr., Shawnee Mission, Kan. 66207
Mason, Mrs. Wayne, 53 E. 107th 64114
Masterson, Mrs. Byron J., 5910 Sunrise Dr., Shawnee Mission, Kan. 66205
Masucci, Mrs. Joseph M., 1012 W. 96th Terr. 64114
Maxwell, Mrs. John A., 5300 W. 80th, Prairie Village, Kan. 66208
Mayer, Mrs. John H., Jr., 5739 Windsor Dr., Shawnee Mission, Kan. 66205
McCanse, Mrs. Andrew, 1232 W. 60th Terr. 64113
McClanahan, Mrs. Robert C., 6456 Overbrook Rd., Shawnee Mission, Kan. 66208
McConchie, Mrs. James E., 12903 E. 35th Terr., Independence 64055
McCoy, Mrs. Fred, 5720 Foster, Shawnee Mission, Kan. 66202
McCunniff, Mrs. William B., 3719 Jarboe 64111
McDonnell, Mrs. John F., 5411 Central 64112
McFarland, Mrs. M. Donald, 5830 High Dr., Shawnee Mission, Kan. 66208
McGannon, Mrs. Paul T., 4806 Pawnee La., Shawnee Mission, Kan. 66205
McIntosh, Mrs. Donald E., 4335 Brentwood, Independence 64050
McKee, Mrs. Joseph W., Parkway Towers-807, 454 Wornall Rd. 64111
McKee, Mrs. Wallace P., 2020 Stratford Rd., Shawnee Mission, Kan. 66208
McKnelly, Mrs. W. V., 6323 Woodson, Shawnee Mission, Kan. 66202
MeMillan, Mrs. Thomas E., 8201 Dearborn, Shawnee Mission, Kan. 66208
McRay, Mrs. Glen, 3715 Johnson Dr., Shawnee Mission, Kan. 66205
McVay, Mrs. James R., Jr., 1233 W. 63rd Terr. 64113
Medlicott, Mrs. William J., 1260 W. 59th 64113
Melgaard, Mrs. S. Ross, 1012 W. 61st Terr. 64113
Meyer, Mrs. Paul W., 5160 Sunset Dr. 64112
Meyers, Mrs. Harold L., 1901 Brookwood Rd., Shawnee Mission, Kan. 66208
Miles, Mrs. George O., 2231 W. 63rd, Shawnee Mission, Kan. 66208
Miller, Mrs. Clint L., 211 Oxford Dr., Lee's Summit 64063
Miller, Mrs. Gerald L., 836 W. 51st 64112
Miller, Mrs. Max I., 4001 W. 66th St., Prairie Village, Kan. 66208
Miller, Mrs. Wilson Herrick, 6400 Verona Rd., Shawnee Mission, Kan. 66208
Miltra, Mrs. Nirmal, 2007 W. 81st Terr., Leawood, Kan. 66206
Mixson, Mrs. William C., 6501 Sagamore Rd., Shawnee Mission, Kan. 66208
Montello, Mrs. Samuel A., 4109 Delmar Dr., Prairie Village, Kan. 66208
Mooney, Mrs. Justin L., 5717 Windsor Rd., Shawnee Mission, Kan. 66205
Mooney, Mrs. Marcel L., 6439 Ensley La., Prairie Village, Kan. 66208
Moore, Mrs. Robert A., 2011 W. 86th Terr., Shawnee Mission, Kan. 66206
Moreano, Mrs. Armando H., 3920 W. 57 Terr., Shawnee Mission, Kan. 66205
Morgan, Mrs. David B., 6513 Jefferson 64113
Morris, Mrs. Joseph H., 5017 George 64133
Morrow, Mrs. Raymond L., 17 W. 69th 64113
Moss, Mrs. Paul, 420 E. 64th Terr. 64131
Mosser, Mrs. Robert S., 3114 S. Norton, Independence 64052
Muehlberger, Mrs. James J., 10345 Cherokee, Shawnee Mission, Kan. 66206
Mueller, Mrs. M. J., 11723 Central 64114
Mullen, Mrs. Leo M., 4443 Paseo Blvd. 64110
Murphy, Mrs. Edward S., 317 W. 51st 64112
Murphy, Mrs. Robert J., 6428 High Dr., Shawnee Mission, Kan. 66208
Murray, Mrs. W. Lee, 10330 Ash, Overland Park, Kan. 66207
Myers, Mrs. Robert M., 804 W. 65th 64113
Myers, Mrs. Wilson A., 425 Huntington Rd. 64113
Naime, Mrs. Mansour J., 9625 Linden Dr., Shawnee Mission, Kan. 66207
Needels, Mrs. Orval T., 207 W. 67th Terr. 64113
Nelson, Mrs. Bentley A., 6429 Willow La., Shawnee Mission, Kan. 66208
Nesselrode, Mrs. John H., 12000 Marbec Trail, Independence 64052
Newman, Mrs. Robert L., 4957 Norwood, Shawnee Mission, Kan. 66205
Nickson, Mrs. Charles E., Jr., 4425 Larson 64133
Nigro, Mrs. E. Robert, 415 W. 55th 64113
Noback, Mrs. R. K., 628 W. 67th 64113
Noltensmeyer, Mrs. Milton, 3305 S. 50th Terr., Shawnee Mission, Kan. 66205
Nunn, Mrs. P. M., 3418 Karnes Blvd. 64111
O'Hearne, Mrs. John J., 5529 High Dr., Shawnee Mission, Kan. 66208
O'Neil, Mrs. James H., 2111 W. 69th Terr., Shawnee Mission, Kan. 66208
Osborne, Mrs. Jerre O., C 15, Lake Lotawana, Route 4, Lee's Summit 64063
Overesch, Mrs. Harry B., 10804 Grandview Rd. 64137
Owens, Mrs. James L., 6913 W. 52nd Terr., Shawnee Mission, Kan. 66202
Ozar, Mrs. Milton B., 1206 W. 62nd 64110
Padfield, Mrs. Earl G., 1900 W. 61st Terr., Shawnee Mission, Kan. 66208
Pakula, Mrs. Sidney F., 5225 Charlotte 64110
Pakula, Mrs. Steven B., 4404 W. 91st, Prairie Village, Kan. 66207
Parker, Mrs. Hubert M., 1200 W. Red Bridge Rd. 64114
Payne, Mrs. William B., 5325 W. 101st Terr., Overland Park, Kan. 66204
Pearson, Mrs. Paul, 5820 Howe Dr., Shawnee Mission, Kan. 66205
Peete, Mrs. Don Carlos, 3717 Belleview 64111
Penner, Mrs. Stanley, 5119 W. 75th, Shawnee Mission, Kan. 66208
Perico, Mrs. Carlos, 8446 Juniper, Prairie Village, Kan. 66207
Perll, Mrs. Maurice F., 830 W. 61st Terr., 64113
Perry, Mrs. Ralph, 7140 Sni-A-Bar Rd. 64129
Petersen, Mrs. Arthur Gene, 9207 Cherokee Lane, Leawood, Kan. 66206
Petersen, Mrs. George, 4806 W. 68th, Shawnee Mission, Kan. 66208
Peterson, Mrs. Milton C., 8321 Woodward, Shawnee Mission, Kan. 66212
Petry, Mrs. E. L., 6520 Reeds Dr., Shawnee Mission, Kans. 66202
Pfeutze, Mrs. Edwin L., 5407 W. 100th Terr., Overland Park, Kan. 66204
Piper, Mrs. Donald K., 9929 High Dr., Shawnee Mission, Kan. 66206
Pipkin, Mrs. Garrett, 5427 Baltimore 64112
Pollock, Mrs. Leo H., 6601 Wenonga Terr., Shawnee Mission, Kan. 66208
Pope, Mrs. Charles M., Jr., 14401 E. 44th, Independence 64050
Porter, Mrs. Louis, 6017 McGee 64113
Potts, Mrs. Donald, 18508 E. 30th Terr., Independence 64050
Preston, Mrs. Albert, Jr., 606 W. Meyer Blvd. 64113
Printz, Mrs. Joseph H., 820 W. 64th Terr. 64113
Pugh, Mrs. Richard George, 102 Golfview Dr., Blue Springs 64015
Puls, Mrs. Jerry L., 10100 Glenwood, Overland Park, Kan. 66212
Quer, Mrs. Erich A., 1901 Stratford Rd., Shawnee Mission, Kan. 66208
Raich, Mrs. Robert A., 828 Greenway Terr. 64113
Ramey, Mrs. Ehret O., 8108 Ward Parkway Plaza 64114
Ratzloff, Mrs. Neal S., 5929 Woodson, Mission, Kan. 66202
Rector, Mrs. Joe Lee, Jr., 3915 W. 53rd, Shawnee Mission, Kan. 66205
Reinhardt, Mrs. G. Robert, 1201 Romany Rd. 64113
Rhoades, Mrs. Arthur, 111 E. Antioch Rd., Box 292, Lenexa, Kan. 66215
Riller, Mrs. L. E., 1267 W. 61st 64113
Rinkel, Mrs. Marie Thiessen, 6405 Sagamore Rd., Shawnee Mission, Kan. 66208
Rippey, Mrs. John H., 9215 Wyandotte 64114
Roberts, Mrs. Harold M., 1005 Brentwood Cir. 64112
Roberts, Mrs. Sam E., 4550 Warwick Blvd. 64111
Robinson, Mrs. Arthur W., 6600 Wenonga Rd., Shawnee Mission, Kan. 66208
Robinson, Mrs. Ernest Kip, 1015 W. 58th Terr. 64113
Robinson, Mrs. William J., 9931 Lee Cir., Shawnee Mission, Kan. 66206
Robison, Mrs. James Travis, Jr., 4203 W. 92nd Terr., Shawnee Mission, Kan. 66207
Rodgers, Mrs. George H., 10041 El Monte La., Overland Park, Kans. 66204
Rubin, Mrs. Sidney, 1287 W. 72nd 64114
Rubnitz, Mrs. Leon H., 210 W. 94th 64114
Russell, Mrs. James L., 1250 W. 56th 64113
Sabates, Mrs. Felix, 1250 W. 67th Terr. 64113
Saferstein, Mrs. A. Lester, 6859 Cherry 64131
Sanders, Mrs. Clarence E., 4700 Roanoke Pkwy. 64112
Sanders, Mrs. Donald, 11721 Oak 64114
Sanders, Mrs. William F., 1004 W. 66th Terr. 64113
Sandow, Mrs. Theodore L., 651 W. 57th 64113
Sasano, Mrs. J. Richard, 4508 W. 93rd, Prairie Village, Kan. 66207
Sauer, Mrs. Gordon C., 830 W. 58th Terr. 64113
Saunders, Mrs. Everett L., 3839 S. Crysler, Independence 64050
Schaerrer, Mrs. W. C., 5245 Mereier 64112
Schiffmacher, Mrs. Jack E., 4517 W. 65th, Prairie Village, Kan. 66208

Schillie, Mrs. Gene A., 8232 Linden, Prairie Village, Kan. 66208
Schmidt, Mrs. C. Robert, 9526 Cedar, Shawnee Mission, Kan. 66205
Schoolman, Mrs. Arnold, 8705 Catalina Dr., Shawnee Mission, Kan. 66207
Schorer, Mrs. Edwin Henry, The Walnuts, 5049 Wornall Rd. 64112
Schottman, Mrs. Gerhard W., Jr., 5010 W. 96th Terr., Shawnee Mission, Kan. 66207
Seely, Mrs. Clark W., 3000 W. 68th St., Shawnee Mission, Kan. 66208
Shalet, Mrs. Malcolm F., 9920 Juniper, Shawnee Mission, Kan. 66201
Shapiro, Mrs. L. M., 6429 Holmes 64131
Sheahon, Mrs. J. A., 7211 Richmond 64133
Shelden, Mrs. Russell D., 816 W. 58th Terr. 64113
Shifrin. Mrs. Alexander, 1027 W. 69th Terr. 64113
Shireman. Mrs. Kenneth L., 55th Terr. & Noland Rd., Route 3 64136
Shires, Mrs. Edward, 4504 W. 93rd, Shawnee Mission, Kan. 66208
Shockley, Mrs. Clarence, 5927 McGee 64113
Shuey, Mrs. Herbert H., 933 E. 77th Terr. 64131
Shumate, Mrs. D. L., 3703 Penn 64111
Simon, Mrs. Sanford, 8129 Rosewood, Shawnee Mission, Kan. 66208
Sinclair, Mrs. Alexander B., Jr., 1230 W. 61st Terr. 64113
Singleton. Mrs. J. Milton, 4618 Warwick Blvd. 64112
Singleton, Mrs. J. Milton, III, 634 W. 60th Terr. 64113
Skillman, Mrs. Robert K., 10335 High Dr., Shawnee Mission, Kan. 66206
Skinner, Mrs. John T., 824 Westover Rd. 64113
Slankard, Mrs. J. Edward, 7223 Summit 64114
Slentz, Mrs. Edwin L., 4812 W. 66th Terr., Shawnee Mission, Kan. 66208
Slentz, Mrs. William A., 9835 Pembroke Lane, Shawnee Mission, Kan. 66206
Slickman, Mrs. Robert A., 4937 Wyoming 64112
Smith, Mrs. Arthur B., 10130 Pawnee La., Leawood, Kan. 66206
Smith, Mrs. Ira T., 2 Wycklow, Shawnee Mission, Kan. 66207
Smith, Mrs. O. D., 6300 Woodson Rd., Mission, Kan. 66202
Smith, Mrs. Wallace B., 3611 S. Delaware, Independence 64050
Sneid, Mrs. Philip, 4201 W. 90th Terr., Overland Park, Kan. 66204
Snider, Mrs. Sam H., 722 Ward Parkway 64112
Snider, Mrs. W. Ray, 14501 Berkshire Dr., Independence 64050
Somoza, Mrs. Jose R., 6614 Indiana 64132
Spafford, Mrs. Allen L., 5552 Belinder Ave., Shawnee Mission, Kan. 66205
Spencer, Mrs. Donald M., 10200 E. 85th Terr., Raytown 64133
Spurny, Mrs. Otto M., 6400 Cherry 64131
Stacey, Mrs. Wallace R., 3407 Shady Bend Dr., Independence 64052
Staggs, Mrs. William A., 641 E. 45th St. 64110
Staley, Mrs. Harry R., 5028 Sunset Dr. 64112
Statland, Mrs. Harry, 1016 W. 69th Terr. 64113
Statland, Mrs. Morris, 2911 W. 66th Terr., Shawnee Mission, Kan. 66208
Steffen, Mrs. L. F., 5521 Crestwood Dr. 64110
Stelle, Mrs. Charles W., 4304 W. 82nd Terr., Shawnee Mission, Kan. 66208
Stelmach, Mrs. W. Jack, 4303 W. 93rd Terr., Prairie Village, Kan. 66208
Stockton, Mrs. Raymond W., 5215 W. 81st, Prairie Village, Kan. 66208
Stockwell, Mrs. A. Lloyd, 5736 Windsor Dr., Shawnee Mission, Kan. 66205
Stribling, Mrs. Thomas L., 3808 S. Union, Independence 64055
Summers, Mrs. Caldwell B., 7312 Jarboe 64114
Sutton, Mrs. Richard L., Jr., 5400 Ward Pkwy. 64112
Swisher, Mrs. Robert C., 6034 Lockton La., Shawnee Mission, Kan. 66205
Szabados, Mrs. Ernest D., 1901 S. Leslie, Independence 64050
Tarson, Mrs. Solomon S., 5511 W. 85th, Overland Park, Kan. 66204
Tasker, Mrs. Charles B., 2721 W. 67th Terr., Shawnee Mission, Kan. 66208
Teare, Mrs. Max, 11201 Walnut 64114
Terrill, Mrs. Robert, 10223 Lee Blvd., Shawnee Mission, Kan. 66206
Thiele, Mrs. George H., 4545 Wornall 64111
Thomas, Mrs. Christopher Y., Jr., 5830 Mission Dr., Shawnee Mission, Kan. 66208
Thompson, Mrs. Charles L., 1256 W. 61st Terr. 64113
Tice, Mrs. Wayne K., 3504 S. Delaware, Independence 64050
Totten, Mrs. Fred E., 9331 Hayes Dr. 66212
Trippe, Mrs. Harrison C.. 6451 Belinder, Shawnee Mission, Kan. 66208
Troeh, Mrs. Richard. 13000 Delaware Dr., Independence 64055
Trowbridge, Mrs. E. H., Jr., 6436 High Dr., Shawnee Mission, Kan. 66208
Turner, Mrs. Ronald. 3509 Hands, Independence 64050
Tutera, Mrs. D. F., 1260 W. 63rd Terr. 64113
Twin, Mrs. Edward, 2921 W. 67th Terr., Shawnee Mission, Kan. 66208
Twyman, Mrs. Richard A., 1020 W. 56th 64113
Underwood, Mrs. Dick Holland, 2008 W. 95th, Leawood, Kan. 66206
Valins. Mrs. Eugene, 1209 W. 70th Terr. 64113
Van Biber, Mrs. James T., 3705 Northern Blvd., Independence 64052
Van Buskirk, Mrs. William C., 1909 W. 67th, Shawnee Mission, Kan. 66208
Vaughn, Mrs. James W., 5509 W. 86th, Shawnee Mission, Kan. 66207
Vilmer, Mrs. Charles E., 6209 W. 65th, Shawnee Mission, Kan. 66202
Vincent, Mrs. Jack C., 2003 W. 67th Terr., Shawnee Mission, Kan. 66208
Virden, Mrs. Herbert H., 6533 High Dr., Shawnee Mission, Kan. 66208
Vogel, Mrs. Arthur P., 4168 Francis 66103
Voth, Mrs. Harold W., 5413 Neosho, Shawnee, Mission, Kan. 66205
Wade, Mrs Frederick E., 413 W. 62nd 64113
Wagner, Mrs. Paul J., 5501 W. 61st Terr., Shawnee Mission, Kan. 66202
Walker, Mrs. James C., 609 E. 96th 64131
Walker, Mrs. John W., 10336 Mohawk Lane, Shawnee Mission, Kan. 66206
Walker, Mrs. Orville C., Jr., 604 Partridge, Independence 64050
Wall, Mrs. Harry C., 2425 W. 67th, Shawnee Mission, Kan. 66208
Wall, Mrs. Leonard A., 5011 Neosho Ave., Shawnee Mission, Kan. 66205
Waxman, Mrs. Herbert, 2312 W. 79th Terr., Prairie Village, Kan. 66208
Webster, Mrs. Joseph G., 5532 Locust 64110
Weiford, Mrs. Edward C., 2009 W. 68th, Shawnee Mission, Kan. 66208
Weir, Mrs. Robert K., 10015 E. 36th, Independence 64052
Wheeler, Mrs. Charles B., 820 W. 57th 64113
Wheeler, Mrs. John H., 5650 Mission Dr., Shawnee Mission, Kan. 66208
White, Mrs. Charles H., 6518 Overhill Rd., Prairie Village, Kan. 66208
White, Mrs. James S., 5413 Cleveland 64130
White, Mrs. Stoughton F., 6815 Cherokee La., Shawnee Mission, Kan. 66208
White, Mrs. William E., 613 W. 57th Terr. 64113
Whiteman, Mrs. John R., 9729 Cherokee La., Leawood, Kan. 66206
Whitman, Mrs. Doyle C., 6836 Cherokee La., Shawnee Mission, Kan. 66208
Whitmore, Mrs. J. Stewart, 1039 W. 58th St. 64113
Whittaker, Mrs. Charles K., 1225 W. 64th 64113
Wien, Mrs. Irving A., 515 E. 78th 64131
Wilber, Mrs. Robert D., 6624 Willow Lane, Shawnee Mission, Kan. 66208
Wilhelm, Mrs. Warren F., 3100 W. 67th Shawnee Mission, Kan. 66208
Wilkinson, Mrs. E. A., 6810 Linden La., Prairie Village, Kan. 66208
Williams, Mrs. Delon Acree, Locarno Apts., 205, 235 Ward Parkway 64112
Williams, Mrs. Frank, 5921 Ward Parkway 64113
Williams, Mrs. Joseph C., Jr., 2209 Arno Rd., Shawnee Mission, Kan. 66202
Williams, Mrs. Roland Dean, 3635 Belleview 64111
Williams, Mrs. Vincent T., 4400 Blue Ridge Blvd. 64133
Willits, Mrs. Lyle G., 1224 W. 62nd 64113
Willoughby, Mrs. James W., 420 N. Ridge, Liberty 64068
Willoughby, Mrs. Jean B., 1019 W. 69th Terr. 64113
Wilson, Mrs. Brickhouse, 700 Ward Pkwy. 64112
Wilson, Mrs. Clifford C., 5531 Neosho La., Shawnee Mission, Kan. 66205
Winer, Mrs. Herbert J., 2103 W. 69th Terr., Shawnee Mission, Kan. 66208
Winston, Mrs. Bernard H., 1006 W. 67th 64113
Wise, Mrs. George W., 4610 Homestead Dr., Prairie Village, Kan. 66208
Wolf, Mrs. Jack, 6125 Morningside Dr. 64113
Woods, Mrs. S. Dwight, 3408 W. 69th, Shawnee Mission, Kan. 66208
Workman, Mrs. Charles E., 6609 Milhaven Dr., Shawnee Mission, Kan. 66202
Wortmann, Mrs. Robert F., 2819 W. 66th Terr., Shawnee Mission, Kan. 66208
Wright, Mrs. R. Paul, 4902 Belinder Rd., Shawnee Mission, Kan. 66206
Wu, Mrs. William, 4414 Homestead Dr., Prairie Village, Kan. 66208
Youll, Mrs. Donald V., 8329 High Dr., Shawnee Mission, Kan. 66206
Young, Mrs. James E., 9700 Overbrook Rd., Leawood, Kan. 66206
Young, Mrs. J. W., 5443 Mohawk, Shawnee Mission, Kan. 66205
Young, Mrs. Paul R., 7424 Gregory Cir., 64113
Youngblood, Mrs. James, 1209 W. 58th 64113
Zahoney, Mrs. Ivan, 4409 W. 93rd, Shawnee Mission, Kan. 66207
Zellermayer, Mrs. Jack, 5801 Lockton La., Shawnee Mission, Kan. 66205
Zoglin, Mrs. Nathan, 333 W. Meyer Blvd. 64113

JASPER COUNTY
(Joplin)

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Allen, Mrs. David D., 505 W. 34th 64801
Alquist, Mrs. Dale. 21st & Fairview, Baxter Springs, Kan.
Barnett, Mrs. Norman H., Route 3, Box 181, Tabor Woods 64801
Birsner, Mrs. Frank, 1717 River, Carthage 64836
Black, Mrs. Mervin H., 1001 W. Murphy Blvd. 64801
Bladow, Mrs. Terrence, 2703 Missouri 64801
Burch, Mrs. John E., 1345 Crest Dr., 64801
Carnes, Mrs. Victor, 710 N. Sergeant 64801
Chase, Mrs. Ned B., 2931 Indiana 64801
Chesney, Mrs. George W., Jr., 2416 E. 12th 64801
Cohle, Mrs. Richard, 1609 Lilac La., Carthage 64836
Craig, Mrs. Irwin T., 2525 E. 12th 64801
Crawford, Mrs. A. L., 2931 Pearl Ave. 64801
Crispell, Mrs. Lawrence S., 911 Kensington 64801
Curl, Mrs. Howard, 2031½ Pearl 64801
Detar, Mrs. Burleigh, Sr., 410 Jackson 64801
Esther, Mrs. John R., 612 Glenview 64801
Ferguson, Mrs. Lewis H., 604 Plaza Dr. 64801
Ferguson, Mrs. Ralph, 420 E. 33rd 64801
Fritsch, Mrs. Andrew J., 2920 Pearl 64801
Gaston, Mrs. Samuel, 2720 Ohio 64801
Hallaba, Mrs. Moheb A. S., 808 Hampton Pl. 64801
Hornback, Mrs. Edward H., 2841 E. 14th 64801
Isbell, Mrs. C. H., 1046 S. Garrison, Carthage 64836
Jeans, Mrs. Virgil, 629 Islington Pl. 64801
Kirschman, Mrs. Robert E., Route 4, Box 359 64801
Koehler, Mrs. John W., 1001 Manizoo 64801
Longenecker, Mrs. J. L., 2606 E. 14th 64801
Maclaughlin, Mrs. James C., 2414 Wisconsin 64801
Maddox, Mrs. John D., 1330 Crest Dr. 64801
McNew, Mrs. W. T., 1204 S. Main 64836
McPike, Mrs. Lloyd H., 2217 Brownell 64801
Myers, Mrs. Roy E., 623 Sergeant 64801
Paddock, Mrs. Charles S., 3910 Range Line 64801
Papp, Mrs. Sandor D., 3343 Pearl 64801

Patterson, Mrs. Donald R., Route 1, Box 481 64801
Patterson, Mrs. Grover S., 1717 River, Carthage 64836
Pence, Mrs. F. Wendell, Route 2, Box 309, Carthage 64836
Post, Mrs. Winfred L., 2630 E. 15th 64801
Powell, Mrs. Robert G., 818 Galena Ave., Galena, Kan. 66739
Schmidt, Mrs. Herbert J., 820 N. Moffet 64801
Schoeberl, Mrs. C. B., 3111 E. 4th 64801
Schulte, Mrs. Gregory A., 2515 E. 12th 64801
Scorse, Mrs. S. W., 619 W. 2nd 64801
Smith, Mrs. Roland T., 426 N. Pearl 64801
Smith, Mrs. Russell W., 315 Euclid, Carthage 64836
Upsher, Mrs. Albert E., 69 Canterbury Lane 64801
Walker, Mrs. Paul, 1022 N. Sergeant 64801
Wood, Mrs. George H., 530 E. Highland, Carthage 64836
Wooldridge, Mrs. Bart F., 1435 Crest Dr. 64801
Young, Mrs. C. C., 2518 E. 15th 64801

JEFFERSON COUNTY

Albee, Mrs. Roger, Crystal City 63019
Bolgar, Mrs. Bertalan, Festus 63028
Deles, Mrs. Vincente, Crystal City 63019
Donnell, Mrs. Harold, De Soto 63020
Donnell, Mrs. Hart, Crystal City 63019
Donnell, Mrs. Thomas, De Soto 63020
Glasgow, Mrs. Mary, Crystal City 63019
Ibaviosa, Mrs. Alfred, Festus 63028
Judge, Mrs. Thomas, Crystal City 63019
Kallenbach, Mrs. Glen P., Route 5, Mexico 65265
Kozal, Mrs. Frank, Crystal City 63019
Mayfield, Mrs. Logan, Crystal City 63019
McKinstry, Mrs. Karl, De Soto 63020
Rutledge, Mrs. John, Crystal City 63019
Senn, Mrs. Emmett, Herculaneum 63084

JOHNSON COUNTY
(Warrensburg 64093)

Cada, Mrs. Edward, 901 E. Clark
Cooper, Mrs. R. Lee, 411 W. Gay
Folkner, Mrs. Albert L., 316 Hillcrest Dr.
Frein, Mrs. D. E., Lecton 64761
Gonzalez, Mrs. Mario Garza, 508 Jefferson
Hanna, Mrs. Hugh, 1003 Vest Dr.
Harkness, Mrs. Harry H., Burkarth Rd.
Johnson, Mrs. Charles S., 502 Hurricane Hill
Jones, Mrs. Keith D., 910 E. Clark
Lederer, Mrs. Charles M., 617 Clark
Maxson, Mrs. R. Reed, Arilen Acres

LAFAYETTE-RAY COUNTIES

Best, Mrs. Robert, Higginsville 64037
Boydston, Mrs. Wayne, Odessa 64076
Brady, Mrs. Hugh, Concordia 64020
Brasher, Mrs. Ben H., Lexington 64067
Cook, Mrs. Edna, Richmond 64085
Cook, Mrs. Thos. B., Richmond 64085
Cope, Mrs. Joseph S., Lexington 64067
Crozier, Mrs. Frank, Sr., Route 2, Richmond 64085
Davault, Mrs. George, Richmond 64085
Fulkerson, Mrs. W. E., Higginsville 64037
Huber, Mrs. Herbert, 205 E. Royle, Richmond 64085
Johnston, Mrs. Esther, Concordia 64020
Kelling, Mrs. Jordan, Waverly 64096
Koppenbrink, Mrs. W. E., Jr., Higginsville 64037
Koppenbrink, Mrs. W. E., Sr., Higginsville 64037
Liston, Mrs. Odis, Oak Grove 64075
Martin, Mrs. W. E., Odessa 64076
Riley, Mrs. Charles, 314 N. Thornton, Richmond 64085
Ward, Mrs. Joe W., Lexington 64067
Williams, Mrs. John, Oak Grove 64075

LINCOLN-ST. CHARLES COUNTIES
(St. Charles 63301)

Baird, Mrs. Keim L., 608 Pam
Barnette, Mrs. Eugene, 22 Wind Rush Creek, Creve Coeur 63141
Berry, Mrs. Paul, 160 Harris, Troy 63379
Cannon, Mrs. Richard, 1000 Cole
Canty, Mrs. Eugene, 1824 Sibley
Clay, Mrs. Calvin, 808 Oak
Clever, Mrs. Henry, 1245 Cunningham
Commerford, Mrs. John, 10 Rio Vista
Creech, Mrs. Joseph, Troy 63379
Crider, Mrs. Russell, 1875 S. River Rd.
Damron, Mrs. Edward, 602 N. 5th, Elsberry 63343
Del Pizzo, Mrs. Ferdinand, 900 Elmwood
Duling, Mrs. Gerald, 5 Shawnee Dr.
DuMontier, Mrs. R. J., O'Fallon 63366
Felder, Mrs. James, 3008 W. Adams
Fleming, Mrs. Robert, 2 Indian Hills Ct.
Goldkamp, Mrs. John, 2620 Park
Gore, Mrs. Glenn, 140 Ladue Pines Rd., Creve Coeur 63141
Gossow, Mrs. Geret, 3029 Flamingo Dr.
Hammes, Mrs. Roman, 505 Concordia
Hanlon, Mrs. Russell, 2616 Brookridge La.
Hetlage, Mrs. Louis, 5 Sunset Dr., Troy 63379
Hurd, Mrs. Ronald, 115 S. Cardinal Lane
Keller, Mrs. Robert, 712 Parr, Wentzville 63385
Kister, Mrs. George, 236 Thomas
Lensenmeyer, Mrs. Charles, 445 Nantucket
Molony, Mrs. Basil, 14330 Ladue Rd., Chesterfield
Muenster, Mrs. Vincent, 3 Briarwood
Perna, Mrs. Vincent, 14 Rio Vista
Poggemeier, Mrs. William, 140 Prairie Haute
Roter, Mrs. Alex, 11223 Tureen
Rother, Mrs. Paul, 7 Elmwood Park
Schneider, Mrs. Thomas, 3208 W. Adams
Schneider, Mrs. Vincent, 2207 W. Adams
Shuetz, Mrs. Alfred, 904 Indian Hills Dr.
Smoller, Mrs. Martin, 14 Colonial Hills Pkway, Creve Coeur 63141
Soucy, Mrs. John, 506 Elmhurst Dr.
Thiele, Mrs. Otto, 3100 W. Adams
Towers, Mrs. Orville W., Elm Point Rd.
Vart, Mrs. Gary, 2220 Dreste Rd.
Westerfeld, Mrs. Roy, 32 Ayshire, Route 4
Wipfler, Mrs. Earl, 143 N. Cardinal
Yaeger, Mrs. Gerald, 1916 Sibley

MILLER-MONITEAU-MORGAN

Buehler, Mrs. Carl T., Jr., Eldon 65026
Burke, Mrs. J. P., California 65018
Fulks, Mrs. Richard B., California 65018
Gallagher, Mrs. Lionel M., California 65018
Gunn, Mrs. Jack, Versailles 65084
Latham, Mrs. Kenyon, 200 S. High, California 65018
Lyle, Mrs. Ray, Versailles 65084
Shelton, Mrs. E. O., Eldon 65026
Washburn, Mrs. J. L., Versailles 65084

MINERAL AREA
(St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve Counties)

Appleberry, Mrs. Charles H., 706 W. Main, Flat River 63601
Appleberry, Mrs. Reuben, 815 W. Columbia, Farmington 63640
Bull, Mrs. Ben, 109 S. Knob, Ironton 63650
Burcham, Mrs. Tom R., Highway W., Farmington 63640
Carleton, Mrs. Charles E., 501 Center, Farmington 63640
Chastain, Mrs. C. W., c/o Medical Arts, 301 W. Liberty, Farmington 63640
Crouch, Mrs. F. Richard, 714 Ste. Genevieve, Farmington 63640
Dennis, Mrs. Paul, 709 Tyler, Flat River 63601
Ford, Mrs. William, 34 Tanglewood, Farmington 63640
Foster, Mrs. J. L., 106 N. Cantwell Lane, Desloge 63601
Fraser, Mrs. Andrew, 334 Church, Bonne Terre 63628
Hardy, Mrs. Stanton L., 206 Harding, Desloge 63601
Huckstep, Mrs. Robert A., Route 1, Farmington 63640
Mardini, Mrs. Edward, 140 Church, Bonne Terre 63628
Mullen, Mrs. Jack, Route 2, Bonne Terre 63628
Oliver, Mrs. George A., 117 Oak Hill Downs, Farmington 63640
Osborn, Mrs. R. W., III, State Hospital Grounds, Farmington 63640
Turner, Mrs. Kirby, Potosi 63664
Watkins, Mrs. George Linn, 813 Dewey, Farmington 63640
Watkins, Mrs. George L., 812 Dewey, Farmington 63640

PETTIS COUNTY
(Sedalia 65301)

Boger, Mrs. John W., 2803 Skyline Dr.
Brady, Mrs. Charles H., 720 W. 5th St.
Braverman, Mrs. Elliot M., 2510 Wing Ave.
Brazos, Mrs. John, Route 2
Burkeholder, Mrs. James, 2002 South Kentucky
Campbell, Mrs. Albert J., 1500 W. 16th
Edmonds, Mrs. Robert, 2413 S. Stewart
Edwards, Mrs. David R., 1619 S. Moniteau
Eldenburg, Mrs. Donald, Route 2
Fisher, Mrs. Stanley D., 2200 S. Kentucky
Gonser, Mrs. Karl B., 1619 W. Broadway
Hite, Mrs. H. A., 416 S. Grand
Hopkins, Mrs. Thomas J., 1506 W. Broadway
Lamy, Mrs. John E., 509 W. Broadway
Long, Mrs. Frank B., 723 W. 7th
Proctor, Mrs. Donald C., 717 W. 6th
Roberts, Mrs. Paul A., 101 E. Marshall, Sweet Springs 65351
Stauffacher, Mrs. Gordon C., 1313 W. Broadway
Stewart, Mrs. Robert H., 201 Driftwood Dr.
Stockwood, Mrs. Robert G., 2600 S. Quincy
Van Dyke, Mrs. Elmer, Route 4, Box 91A
Worley, Mrs. C. A., 102 W. Ray, Sweet Springs 65351

ST. LOUIS CITY
(St. Louis)

Abel, Mrs. Oliver, III, 409 Oakley Dr. 63105
Allen, Mrs. Willard M., 12538 Conway Rd. 63141
Arneson, Mrs. Axel N., 6314 Waterman 63130
Arnot, Mrs. John P., 523 Gatehill Lane, Ballwin 63011
Babka, Mrs. Joseph J., 3845 Federer Pl. 63116
Backer, Mrs. Matt H., Jr., 101 Flamingo Dr. 63123
Barden, Mrs. Frank W., 41 Beaver Dr. 63141
Bartlett, Mrs. Robert W., 6459 Wydown 63105
Bartlett, Mrs. Willard, Jr., 6345 Ellenwood 63105
Bartlett, Mrs. Willard, Sr., 53 Westmoreland Pl. 63108
Bartnick, Mrs. Mitchell L., 6476 Eichelberger 63109
Bassett, Mrs. Robert B., 4050 N. Ocean Dr., Lauderdale by the Sea, Fla. 33308
Becker, Mrs. Stanley C., 11959 Emerald Green Dr. 63141
Bell, Mrs. Robert M., 35 Glen Rd. 63119
Benjamin, Mrs. Durand, 7340 Navarre Circle 63123
Bilsky, Mrs. Nathan, 2 Somerset Downs 63124
Bindbeutel, Mrs. Arthur H., 3953 Holly Hills 63116
Bircher, Mrs. John L., 3932 Federer Pl. 63116
Boemer, Mrs. Lilburn C., 49 Clermont La. 63124
Bohrer, Mrs. Harry C., 4112 Flora Pl. 63110
Boveri, Mrs. Joseph C., 8201 Fendale Dr. 63123
Boyd, Mrs. Arthur M., 6556 Delor Ave. 63109
Bradley, Mrs. Frank R., 7404 Oxford Dr. 63105
Bradley, Mrs. John Martin, 7400 Wydown, c/o Mrs. W. C. Stude, 63105
Brennan, Mrs. George A., 10546 Hanford 63128
Brennan, Mrs. Robert Alexis, 6030 Highfield Rd. 63109
Brown, Mrs. Clyde O., 7419 York Dr. 63105
Brown, Mrs. E. Eugene, 7508 Cromwell Dr. 63105
Brown, Mrs. James Barrett, 710 S. Hanley Rd. 63105
Brown, Mrs. Seymour, 2 Ricardo La. 63124
Bruns, Mrs. Kenneth, 6318 Washington 63130
Budd, Mrs. John J., Jr., 501 Overhill Dr. 63130
Burroughs, Mrs. W. H., 7327 Pershing 63130
Burst, Mrs. Donald O., 61 Trent Dr. 63124
Byrne, Mrs. John Edward, 6465 Westway 63109
Cameron, Mrs. Solon, 43 Washington Terr. 63112
Cannon, Mrs. Edward M., 20 Braircliff 63124
Cannon, Mrs. William J., 43 Clermont La. 63124
Cappel, Mrs. Powell B., 27 Old Westbury La. 63119
Carney, Mrs. Joseph E., 6625 Pernod Ave. 63139
Carroll, Mrs. George A., 7831 Delmar Blvd. 63130
Cavanagh, Mrs. Denis, 12 Ridgetop 63117

Chamness, Mrs. James T., 1 St. Andrews Dr. 63124
Cherre, Mrs. Charles J., 10 Ridgetop 63117
Ciapciak, Mrs. Stanley J., 30 Log Cabin Dr. 63124
Clark, Mrs. Clarence L., 705 Questover 63141
Conrad, Mrs. Adolph H., Jr., 9 Dromara Rd. 63124
Correnti, Mrs. Nicholas A., 6617 Itaska 63109
Costa, Mrs. Dominic V., 10 Devondale La. 63131
Crossman, Mrs. Robert W., 1509 Holly Dr. 63119
Daake, Mrs. John W., 48 Portland Pl. 63108
Dalton, Mrs. Arthur R., 13133 Conway & Mason Rd. 63141
Danforth, Mrs. William H., 7 Black Creek Lane 63124
Dash, Mrs. Udaya N., 1 Winding Brook La. 63124
Dewald, Mrs. Paul A., 60 Convay Lane 63124
Diehr, Mrs. Alvin H., Park Tower Apts. 63105
DiLeo, Mrs. Senatro W., 34 Ridgetop 63117
Donahoe, Mrs. James L., 7336 Princeton, University City 63130
Dorton, Mrs. Robert K., 7375 Stratford 63130
Drake, Mrs. Truman G., 6344 Alexander 63105
Drews, Mrs. Robert C., 6361 Cornell Ave. 63130
Dreyer, Mrs. Carl Joseph, 45 Glen Rd. 63119
Dripps, Mrs. Roy C., 7824 Keswick Pl. 63119
Eades, Mrs. Dee W., 6 Kingsbury Pl. 63112
Eagleton, Mrs. Mark D., 22 Carrswold 63105
Edwards, Mrs. Joseph C., 610 W. Polo Dr. 63105
Egan, Mrs. Robert C., 556 Oak Haven Lane 63141
Eigel, Mrs. Edwin G., 3654 Flora Pl. 63110
Ernst, Mrs. Edwin C., 2 Schultz Rd. 63122
Feller, Mrs. Harold H., 5834 Bermuda Rd. 63121
Finn, Mrs. Murray Eugene, 47 Portland Pl. 63108
Fish, Mrs. Virgil D., 2500 Town & Country La. 63131
Fitzgerald, Mrs. Leo P., 7219 Cornell Ave. 63130
Fitzgerald, Mrs. William T., 6425 Rhodes 63109
Flotte, Mrs. Bernard H., 6 Lila Lane, Florissant 63030
Flotte, Mrs. Sylvester, 9113 Glen Garden 63136
Ford, Mrs. Lee T., Jr., 45 Green Acres 63137
Franklin, Mrs. Max S., 7536 Buckingham Dr. 63105
Fries, Mrs. Armand D., 11 W. Geyer La. 63131
Fries, Mrs. John, 106 Frontenac Forest 63131
Furla, Mrs. Gus John, 57 Broadview Dr. 63105
Gagliardo, Mrs. Joseph, 70 E. Ladue Estates 63141
Gandlmayr, Mrs. Jack M., 541 Beaufort 63122
Gantner, Mrs. George E., Jr., 6641 Pershing Ave. 63130
Gantz, Mrs. John A., 6106 Willow Bend 63123
Glaser, Mrs. Martin J., 3550 Hawthorne Blvd. 63104
Glick, Mrs. Harry N., Mason Rd., Route 13, Kirkwood 63122
Goldman, Mrs. Melvin L., 8650 Barby La. 63124
Gomez, Mrs. Cesar A., Jr., 18 Havenview Dr. 63141
Grebel, Mrs. Clement B., 58 Grantwood Lane 63123
Green, Mrs. William R., 10311 N. Sunswept 63141
Greiner, Mrs. Theodore, 7507 Washington 63130
Gresick, Mrs. Robert J., 11 Coach-N-Four La. 63131
Grogan, Mrs. Frank M., 4166 Flora Pl. 63110
Gunn, Mrs. Walter T., 6742 Itaska 63109
Haddock, Mrs. James N., 111 Firwood Dr. 63119
Haeberle, Mrs. Frederick S., Hillhaven Home, 5460 Delmar 63112
Hagebusch, Mrs. Omar E., 16 Covington La. 63132
Hall, Mrs. Preston C., 39 Woodcrest Dr. 63124
Hall, Mrs. Robert A., 43 Washington Terr. 63112
Hammond, Mrs. John J., 7245 Maryland 63130
Harkins, Mrs. William M., 7 Kingsbury Pl. 63112
Harris, Mrs. Solon P., 7138 Maryland 63130
Harrison, Mrs. Lee B., 44 Ridgemoor Dr. 63105
Hartnett, Mrs. Leo B., 9833 Waterbury 63124
Hassett, Mrs. Henry A., 4440 Lindell 63108
Haynes, Mrs. Pugh, 8006 Gannon 63130
Heinbecker, Mrs. Peter, 4605 Lindell 63108
Henderlite, Mrs. John W., 11927 Spruce Haven Ct. 63141
Henschel, Mrs. Eugene V., 55 Broadview Dr. 63105
Hertel, Mrs. Ronald C., 122 Frontenac Forest 63131
Hicks, Mrs. Robert S., 11155 Conway Rd. Forest 63131
Hilbert, Mrs. Paul H., 5701 Pernod Ave. 63139
Hogan, Mrs. Patrick C., 9039 Laurel Crest Dr. 63126
Holeman, Mrs. Ralph E., 735 Montauban Dr. 63141
Hollo, Mrs. Vencel W., 5925 Lindell 63112
Hummel, Mrs. William C., 12445 E. 6th Pl., Denver, Colo. 80220
Hutchinson, Mrs. William B., 2233 Cleek St. 63131
Jensen, Mrs. Joshua E., 3 Brazillian Ct. 63124
Jones, Mrs. Otey S., 2010 Longfellow Blvd. 63104
Jones, Mrs. Vincent L., 123 N. Forsyth 63105
Jost, Mrs. Charles A., 2 Bellerive Acres 63121
Karandjeff, Mrs. A. D., 8016 Walinca, 63105
Karl, Mrs. Michael M., 14 Thorndell 63117
Kelley, Mrs. Robert W., 5371 Waterman Ave. 63112
Kendig, Mrs. John H., 841 Rolfe Dr. 63122
King, Mrs. Samuel J., 5000 S. Broadway 63111
Klein, Mrs. Harry A., 2 Sunswept Dr. 63141
Klein, Mrs. Saul J., 11 Huntleigh Downs 63131
Klippel, Mrs. Bernhardt W., 52 Fair Oaks 63124
Kloecker, Mrs. Richard J., 1022 Hampton Pk. 63117
Kluegel, Mrs. William A., 2845 Gravois Ave. 63118
Klym, Mrs. Nicholas, 1505 Doris Dr. 63138
Kneal, Mrs. Ellsworth, 725 S. Skinner 63105
Knight, Mrs. Franklin P., 11465 Fairlane Ct. 63136
Knight, Mrs. William A., Jr., 12 Braircliff 63124
Komanetsky, Mrs. William, 7447 Sharp Ave. 63116
Koon, Mrs. Bernard T., 2623 Gurney Ct. 63110
Kountz, Mrs. William B., 2629 Gurney Ct. 63110
Kowert, Mrs. Edward H., 330 Planthurst Dr. 63119
Krojanker, Mrs. Rolf J., 1060 Purdue 63130
Kronemer, Mrs. Norton S., 703 Westwood Dr. 63105
Kuhlman, Mrs. Robert E., 12 Upper Barnes Rd. 63124
Ladd, Mrs, Gharles B., 41 Fox Meadows 63127
Langsdorf, Mrs. Herbert S., 3681 Alberta Ave. 63116
Larocca, Mrs. Felix E. F., 7945A Delmar Blvd. 63130
Lau, Mrs. Luis F., 1467 Reauville Dr. 63122
Laux, Mrs. France A., 287 Ridge Trail Dr., Chesterfield 63017
Lembeck, Mrs. Joseph A., 4103 Flora Pl. 63110
Lerwick, Mrs. E. R., 40 Portland Pl. 63108
Lewis, Mrs. J. Eugene, Jr., 7129 Kingsbury Ave. 63130
Lohr, Mrs. Curtis H., 300 S. Grand 63103
Lottes, Mrs. J. Otto, 1028 Winwood Dr. 63124
Lugo, Mrs. Samuel, 9890 Wild Deer 63124
MacDonald, Mrs. William O., 63 Briarcliff 63124
Macnish, Mrs. James M., 229 Bompart 63119
Maher, Mrs. Thomas F., Jr., 20 Willow Oak La. 63122
Malles, Mrs. A. Conrad, 69 Wood Oaks Trail 63124
Mathae, Mrs. George H., 3167 S. Grand Blvd. 63118
McMahon, Mrs. Alphonse, 5 Covington Meadow 63132
Mehan, Mrs. Donald J., 34 Gadwin 63124
Meirink, Mrs. Thomas P., 300 Gettysburg Rd., Belleville, Ill. 62223
Mendonsa, Mrs. Lawrence E., 138 Ridgecrest Dr., Chesterfield 63017
Merenda, Mrs. Sam J., 45 Berry Rd. Pk. 63122
Merklin, Mrs. Anton L., 5926 Crane Cir. 63109
Mestres, Mrs. Hugh M., 12329 Federal Rd. 63131
Meyerhardt, Mrs. Milton H., 665 S. Skinker, 63105
Miller, Mrs. J. P., Jr., 5501 Lindell 63112
Miskovsky, Mrs. Emil F., 630 S. New Ballas Rd. 63141
Montgomery, Mrs. Austin F., 18 Southcote Rd. 63144
Morfit, Mrs. John C., 7627 Wydown Blvd. 63105
Moskop, Mrs. Peter G., 1105 Holly Hills Ave. 63111
Mueller, Mrs. Wilbur K., 1160 S. McKnight Rd. 63117
Muether, Mrs. R. O., 19 Country Life Acres 63131
Mullins, Mrs. John E., 3962 Juaniata 63116
Murphy, Mrs. James Patrick, 27 Berkshire 63117
Neilson, Mrs. Arthur W., 6349 Alexander Dr. 63105
Nemec, Mrs. Stanley S., 2870 S. Lindbergh 63131
Neun, Mrs. William F., 5862 Delor 63109
Newton, Mrs. William T., 1218 Glen Vista 63122
Nye, Mrs. Robert S., 4910 Broadway S.
Obermeyer, Mrs. Gharles G., 3957 Holly Hills Blvd. 63116
O'Neal, Mrs. Lawrence W., 1 Nassau 63124
Oppenheimer, Mrs. Henry E., 9444 Old Bonhomme Rd. 63132
O'Reilly, Mrs. D. Elliott, 9054 Glayton Rd. 63117
Orenstein, Mrs. Joseph M., 417 Jackson Ave. North 63130
O'Sullivan, Mrs. George A., 6181 Lindell 63112
Parashak, Mrs. Paul M., 7344 Whitehaven Dr. 63123
Parsons, Mrs. Richard P., 649 Mosley Rd. 63141
Patrick, Mrs. Roman L., 13109 Four Poster Ct. 63141
Peden, Mrs. Joseph C., Jr., 51 Fair Oaks 63124
Peeler, Mrs. J. O., 10000 Knoll Crest Ct. 63136
Pernoud, Mrs. Flavius G., Jr., 841 Audubon Dr. 63105
Pernoud, Mrs. Michael F., 51 Frontenac 63131
Powell, Mrs. Earl A., 78 Lake Forest 63117
Powers, Mrs. Pierce W., 4 Crestwood Dr. 63105
Pyne, Mrs. Herbert S., 5320 Mardel 63109
Rainey, Mrs. Robert, 5165 Lindell Blvd. 63108
Raybuck, Mrs. H. E., Jr., 22 Rolling Rock Ct. 63124
Rendleman, Mrs. George F., 532 Midvale 63130
Rendleman, Mrs. George R., Jr., 2 Vista Brook 63124
Repetto, Mrs. Albert M., 66 Berry Road Pk. 63122
Ritter, Mrs. Hubert A., 26 Briarcliff 63124
Rodriguez, Mrs. U. R., 10408 Daybreak Dr. 63128
Roper, Mrs. Charles L., 46 York Dr. 63144
Roy, Mrs. Joseph A., 55 Berkshire 63117
Royce, Mrs. Robert K., 766 High Hampton Rd. 63124
Ryan, Mrs. Robert E., 1 West Point Lane 63131
Sanders, Mrs. Robert D., 4214 Flora Pl. 63110
Sante, Mrs. Leroy, 308 Orchard Ave. 63119
Sauer, Mrs. William Nicholas, 12076 Tangletree Dr. 63141
Schaper, Mrs. Ernest H., 1473 Reauville Dr. 63122
Scheer, Mrs. George E., 53 Berkshire 63117

Schmidt, Mrs. Edwin H., 10240 Schuessler Rd. 63128
Schweiss, Mrs. John F., 1414 Westwind Dr. 63131
Sciortino, Mrs. Gaspare, 1019 Laval Dr. 63132
Scott, Mrs. Elwin Powers, 12718 Post Oak Rd. 63131
Sevastianos, Mrs. Aristides, 52 E. Ladue Estates Dr., Creve Coeur 63141
Sexton, Mrs. Daniel L., 14 Crestwood Dr. 63105
Shaw, Mrs. Edward J., 3723 Delor 63109
Sherwin, Mrs. Charles F., Lonedell 63060
Sherwin, Mrs. Charles S., 3971 Flora Pl. 63110
Simon, Mrs. David, 7809 Gannon 63130
Simon, Mrs. Jerome I., 12 Westridge Ct. 63124
Smith, Mrs. Benjamin F., 104 Aberdeen Pl. 63105
Smith, Mrs. Garland F., 1115 Hampton Park Dr. 63117
Smith, Mrs. Herbert P., 9245 Sappington Rd. 63126
Smith, Mrs. Hugh R., 8836 Rock Forest Dr. 63123
Smolik, Mrs. Edmund A., 59 Middlesex Dr. 63144
Spoeneman, Mrs. Walter H., 18 Biritz Ct. 63137
Stephens, Mrs. LeRoy, Sylvester 63119
Stindel, Mrs. Charles E., 341 Violet Lane 63119
Strominger, Mrs Donald B., 701 Yale Ave. 63130
Stroud, Mrs. C. Malone, 6232 McPherson 63130
Sudholt, Mrs. Alfred F., Jr., 13398 Conway Rd., Normandy 63141
Sullivan, Mrs Clement J., 7740 Mohawk Dr. 63105
Sweet, Mrs. Herbert C., 3 St. James Ct. 63119
Taveras, Mrs. Juan M., 17 Carrswold 63105
Thale, Mrs. Thomas, 351 Meadow Brook, Ballwin 63011
Thompson, Mrs. J. William, 92 Lake Forest 63117
Tjoflat, Mrs. Oliver E., 252 Woodbourne 63105
Tremain, Mrs. Irl G., 4254 Flora Pl. 63110
Twedell, Mrs. Donald, 5341 Bermuda Rd. 63121
Uhlemeyer, Mrs. Henry A., Sr., 641 A. Geoffry La. 63132
Vandover, Mrs. John T., 3 Grantwood Lane 63123
Vest, Mrs. James C., 2800 Stonington 63131
Virant, Mrs. John A., 119 S. Spoede Rd. 63141
Vitt, Mrs. Alvin E., 9951 Warshire Dr. 63132
Von Kaenel, Mrs. Joseph E., 551 Barnes Rd. 63124
Wacker, Mrs. Leo L., 9115 Clydesdale Dr. 63126
Walters, Mrs. Harold E., 9 Huntleigh Woods 63131
Wegner, Mrs. Carl R., 7401 Wellington Ave. 63130
Weinel, Mrs. Francis G., 333 Oakwood Ave. 63119
Weinsberg, Mrs. William C., 6220 Helm 63109
Weir, Mrs. Don C., 625 Sherwood Dr. 63119
Welsh, Mrs. Laurence C., 103 Old Watson Rd. 63119
Wennerman, Mrs. Sam F., 501 Warren 63130
Werner, Mrs. William A., 6015 Childress Ave. 63109
Wiegand, Mrs. Herbert C., 40 Overhill Dr. 63124
Wilucki, Mrs. Melvin R., 6455 Westway Rd. 63109
Witt, Mrs. Clyde M., 11 Deer Creek Woods 63124
Wittgen, Mrs. Edward M., 8901 Rock Forest Dr. 63123
Wood, Mrs. V. Visscher, 8015 Delmar 63130
Woodbridge, Mrs. John H., 4527 Maryland Ave. 63108
Wotawa, Mrs. William J., 3804 Wilmington 63116
Young, Mrs. H. McClure, 245 Union Blvd. 63108
Zeitler, Mrs. William T., 152 Timbercrest Rd. 63122
Zink, Mrs. Oscar C., 9 The Orchards 63132

ST. LOUIS COUNTY

Ahlvin, Mrs. Robert C., 7061 Waterman, University City 63130
Alex, Mrs. Morris, 18 Crosswinds 63132
Aronson, Mrs. Abraham, 11 Conway Lane 63124
Ayata, Mrs. Sedat, 2 Bon Aire, Olivette 63132
Bagby, Mrs. J. W., 7 Country Life Acres 63131
Bailey, Mrs. Wm. Harold, 9157 E. Milton Ave. 63114
Bauer, Mrs. Robert A., 11 Harneywold Dr. 63136
Bergmann, Mrs. John F., 550 Bonhomme Woods 63132
Berndsen, Mrs. Gerard H., 12933 Topping Estates 63131
Berwald, Mrs. Irvin I., 747 Old Bonhomme Rd., University City 63130
Boles, Mrs. C. Read, 9307 Old Bonhomme Rd. 63132
Bowles, Mrs. G. Robert, 1054 Barry Ct. 63122
Briscoe, Mrs. John, 10053 Briarwood Dr. 63131
Cacioppo, Mrs. Joseph E., 1809 New Jamestown Rd. 63138
Carlson, Mrs. Arne E., 89 Pebblebrook La., Creve Coeur 63141
Carmona, Mrs. Gilberte, 8210 Montreal Dr., University City 63132
Catanzaro, Mrs. R. E., 24 Foxboro Rd. 63124
Chinsky, Mrs. Murray, 7200 Colgate Ave., University City 63130
Coldwater, Mrs. Kenneth, 1520 Ridgewood Dr. 63126
Costrino, Mrs. John J., 922 Jeanerette Dr., University City 63130
Costrino, Mrs. Joseph A., 12567 Conway Rd., Creve Coeur 63141
Cowdry, Mrs. Edmund, 220 Woodridge, Kirkwood 63122
Davidson, Mrs. Morris, 128 Frontenac Forest 63131
Davis, Mrs. Edgar W., 49 Woodcrest Dr. 63124
Deitchman, Mrs. Robert, 1 Ridgegate Dr. 63132
Denny, Mrs. Robert B., 7827 Delmar Blvd., University City 63130
Deyton, Mrs. John W., 659 Fairview Ave., Webster Groves 63119
Diehr, Mrs. Maurice A., 28 Dromara Rd., Ladue 63124
Dill, Mrs. Foster A., 1551 Bellevue Ave., Richmond Heights 63117
Doisy, Mrs. Robert A., 103 Edwin Ave., Glendale 63122
Dowd, Mrs. James F., 30 Brentmoor Park, Clayton 63105
Dumonceaix, Mrs. Leonard, 301 Grascony Ave. 63122
Dyer, Mrs. Clyde P., Del Mesa Carmel, 99, P.O. Box 2710, Carmel, Calif. 93921
Efron, Mrs. Joseph, 30 Ladue Estates Dr. 63141
Eidelman, Mrs. Jack, 8001 Walkins Dr.
Eller, Mrs. C. Howe, 1408 Fawnvalley Dr. 63131
Ellison, Mrs. Leroy E., 7346 Myrtle Ave., Maplewood 63143
Emerson, Mrs. Reynolds L., 618 S. Rock Hill Rd., Webster Groves 63119
Estes, Mrs. Jack, 53 Bellerive Acres, 63121
Fairshter, Mrs. Alex E., 9 Blackpool Lane 63132
Ferrara, Mrs. John P., 31 Bellerive Acres, Normandy 63121
Finkel, Mrs. Barney W., 7210 Bristol Dr., Normandy 63121
Fletes, Mrs. James W., 5601 Lindell Blvd. 63112
Forsman, Mrs. Waldo W., 4128 S. Lindbergh Blvd. 63127
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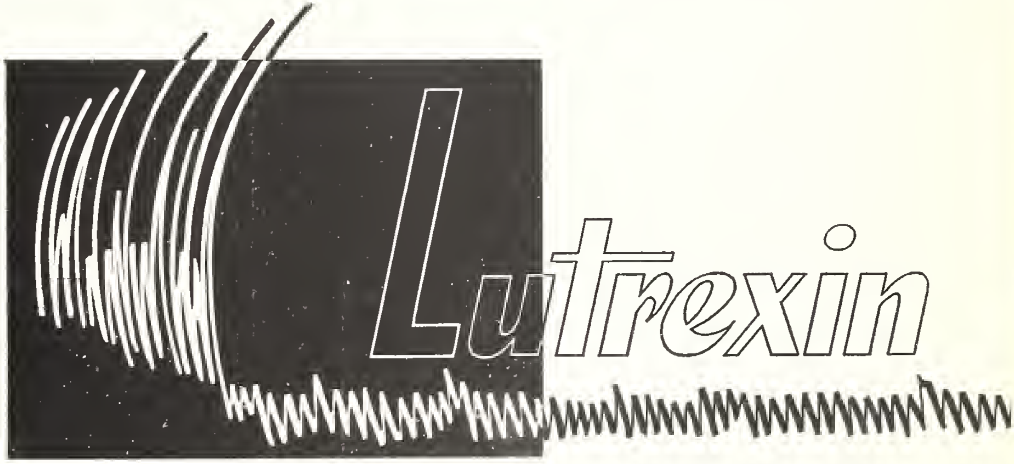

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Missouri Medicine

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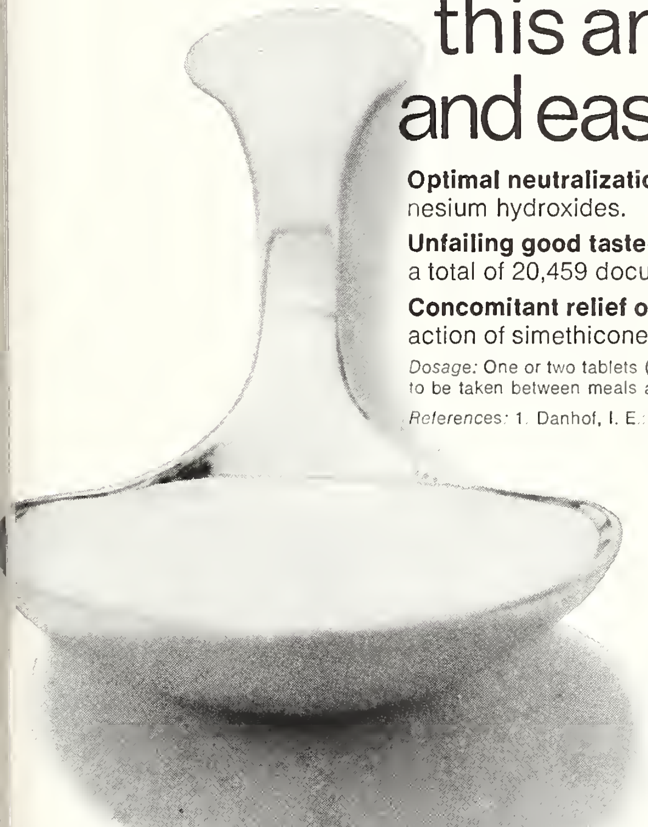

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WASHINGTON

IRS to Investigate Physicians' Tax Returns

The Internal Revenue Service plans to audit the federal income tax returns of physicians and other health practitioners who have received more than $25,000 a year in medicare and medicaid payments.

Plans for the special audit were disclosed by IRS Commissioner Randolph W. Thrower at the first of a series of public hearings the Senate Finance Committee is holding in its investigation of the rising costs of the two government health care programs. He said the Department of Health, Education and Welfare had agreed to require intermediary insurance carriers to use physicians' social security numbers on reports of payments under the program in the future.

Finance Committee Chairman Russell B. Long (D., La.) estimated "possibly as many as 10,000" had been getting upwards of $25,000 a year under the programs. Thrower said the initial audits would be for 1967 and would be limited to those receiving more than $50,000.

Long said that the investigation of the committee's staff to date showed "widespread abuse and fraud, as well as lax administration."

Robert M. Ball, social security administrator, reported that his investigators had looked into more than 700 possible fraud cases under medicare. He said more than 300 of these cases were still in some stage of inquiry and that 14 had been turned over to the Justice Department for prosecution.

"But these should not be taken as a reflection on the 200,000 doctors participating in medicare," Ball said. He added, a bigger problem than outright fraud were "cases that don't quite become fraud."

HEW Undersecretary John G. Veneman told the committee that the Nixon Administration wants congressional authority to stop medicare payments to doctors who overcharge, use inferior supplies or engage in fraud.

"Under present medicare law, there is no authority for the program to deny reimbursement to a licensed practitioner, who has demonstrated a clear pattern of fraud, repeated overcharging of the program or the use of supplies which are inferior or harmful," Veneman said.

"We are recommending authority . . . to discontinue future reimbursement and to put all parties on notice to this effect where on the basis of clear evidence, a finding is made that this is justified by reason of such abuses."

Commenting on the hearings, Dwight L. Wilbur, M.D., President of the American Medical Association, said that the vast majority of physicians serving medicaid patients are not overcharging for their services.

"Most physicians," Dr. Wilbur said, "are acting honorably and with utmost restraint. Fortunately, very few M.D.'s participating in medicaid are guilty of overcharging and otherwise exploiting the program. Such exploitation by a minuscule minority was unavoidable. . . .

". . . The medical profession is making a great effort to identify and weed out dishonest doctors who betray their oath as professional men serving the public. We have been successful in this search, but a few physicians remain who still are not identified. We shall search them out and expose them, for the good of the entire profession."

Meantime, HEW issued a regulation limiting the fees paid by states to physicians, dentists and other health practitioners under medicaid.

Under the regulation, a state's medicaid payment to a physician for a service will be limited, with one exception, to the 75th percentile of the customary charge—the maximum customary fee of 75% of the physicians in the area.

If a state has been paying more than the 75th percentile of the customary charge, it must not exceed the medicare level, about the 83rd percentile. A medicaid official said that only two states may have to roll back their fees, but declined to name them.

After July 1, 1970, states may request permission to increase physicians' fees above the 75th percentile if two conditions are met:

1. The average percentage increase requested above the 75th percentile on Jan. 1, 1969, may not exceed the percentage increase in the all-services component of the Consumer Price Index (adjusted to exclude the medical component) or in an alternate index designated by the Secretary of Health, Education and Welfare.

2. Evidence must be clear that the providers and the states have cooperatively established effective utilization review and quality control systems.

The new fee regulation also requires states to revise their medicaid plans to include descriptions and details of their payment structures. A state that wishes to revise its payment structure for practitioners' services or change the payments authorized under it may not do so until the proposed changes have been approved by the Secretary of Health, Education and Welfare or his representative.

States that begin their medicaid programs after July 1, 1969, must arrange their payment structures so that fees do not exceed the 75th percentile of customary charges.

HEW estimated the regulation would result in a saving of $65 million in the first year.

Despite a strong protest by the American Hospital Association, HEW discontinued the overhead medicare-medicaid percentage allowance paid to hospitals, extended care facilities and other institutional providers. It was two per cent for non-profit and one-and-one-half per cent for proprietary institutions. The action was effective July 1, 1969.

Another new medicaid regulation requires states to provide periodic health screening, diagnosis, and treatment for all eligible youths under 21 years of age, effective July 1, 1969.

HEW also established a new classification of institution—called intermediate care facility—eligible to receive federal contributions for the care of aged, blind or disabled recipients or public assistance is covered in another regulation. This should reduce costs of medicaid by allowing states to relocate substantial numbers of welfare recipients who are now in skilled nursing homes in lower cost institutions, HEW said.

DR. ROGER O. EGEBERG NAMED ASSISTANT SECRETARY OF HEW

Dr. Roger O. Egeberg, who has been dean of the School of Medicine, University of Southern California since 1964, was selected to be the new Assistant Secretary of Health, Education and Welfare for Health and Scientific Affairs after a five-month delay.

President Nixon nominated Dr. Egeberg after HEW Secretary Robert H. Finch "reluctantly and regretfully" withdrew his unannounced but widely-publicized selection of Dr. John H. Knowles, director of Massachusetts General Hospital, Boston. Finch said that "the protracted and distorted discussion" about the appointment during the five months the post had been vacant "resulted in a situation in which he (Knowles) would not be able to function effectively in this critical position."

The news media—press, radio and television—generally assigned the opposition to Dr. Knowles to conservative members of Congress, led by Senate Republican Leader Everett M. Dirksen, and to the AMA.

Throughout the public controversy before the appointment, the AMA confirmed its comment to a short statement that it had suggested several names to Finch for the post and that the Association "favored the appointment of someone who would represent the broadest scope of medicine and would not be too closely oriented to any one segment of medicine or the health field." Knowles was not one of the physicians on the AMA list.

A few days after the nomination of Dr. Egeberg, Dr. Dwight L. Wilbur, the AMA President, said, "During the last five months, the American Medical Association has been identified repeatedly as a force opposing appointment of Dr. John H. Knowles as Assistant HEW Secretary for Health and Scientific Affairs.

"We held our silence during the last months of nationwide publicity because we agreed with Secretary Finch to make our suggestions to him and then say no more. We did that. The Knowles protagonists obviously did just the opposite. . . .

"In a true sense, we never opposed Dr. Knowles. But we did not support him because we had alternative recommendations."

Those recommended by AMA for the position, Dr. Wilbur said, included the following:

—Dr. W. Clarke Wescoe, former Chancellor of the University of Kansas, "who withdrew soon after because of personal reasons."

—Dr. Richard S. Wilbur, Palo Alto Clinic, Chairman of the Council of the California Medical Association, and former Chairman of the Board of California Blue Shield, "who happens to be my nephew, a fact which complicated the situation, but who AMA felt was a well-qualified man for this position."

—Dr. John R. Hogness, Dean of the University of Washington School of Medicine, "who serves in the AMA House of Delegates, at high level in the Association of American Medical Colleges and who has many other distinguished achievements."

The AMA commended the selection of Dr. Egeberg. In a telegram to Finch, Dr. Wilbur said:

"We look forward to a productive relationship with you and Dr. Egeberg in advancing the

(Continued on page 631)

WHAT'S
SO WEAK
ABOUT
THE WEAKER
SEX?

"Umbrella" Concept Bill Gets Legislative OK

The "umbrella" concept for the licensing of paramedical personnel under the direction of the Board of Registration for the Healing Arts became a reality during the recently-concluded session of the Missouri General Assembly.

House Bill 39 which provides for the registration of Physical Therapists under the "umbrella" concept was passed in revised form by both the Senate and the House. A similar bill had died in the Senate during the 1967 session of the General Assembly.

The bill was introduced this year by Representative Kenneth Rothman (D-St. Louis) and supported by the Missouri State Medical Association and the Missouri Association of Osteopathic Physicians.

Under terms of the final version of the bill, the Board of Registration for the Healing Arts has the complete responsibility for the licensing of professional physical therapists.

House Bill 39 was just one of approximately 60 medically-oriented bills introduced in the 1969 session and closely followed by the Missouri State Medical Association's Legislative Matters Committee and members of the MSMA staff.

More than 45 witnesses were provided for 30 hearings during the 1969 session of the 75th General Assembly.

The 1969 session saw approval for the new University of Missouri Medical School at Kansas City — a project supported by MSMA. A $150,000 appropriation for planning of the school was approved by the General Assembly in its emergency appropriation bill. Another appropriation for the school of at least $25,000 was lost when the omnibus appropriation bill was abandoned on the final night of the session. The House had approved $460,000 for the school in the bill, but the Senate had cut the fund to $25,000.

A measure which called for state grants to Missouri's private medical and osteopathic colleges was passed by the House but failed to clear the Senate's Budget Control Committee.

Passed by both Houses was a measure which provides for the payment for emergency ambulance service for patients entitled to Title 19 benefits.

As reported earlier, the Anatomical Gift Act bill was passed by both Houses of the Legislature and signed into law by Governor Warren E. Hearnes. It was supported by MSMA.

An MSMA-supported bill approved during the session provides for the mandatory reporting by physicians and others of cases of suspected child abuse. The so-called "battered baby bill" was also sponsored by Representative Rothman and replaces the present permissive legislation in the field of child abuse.

The perennial effort of the chiropractors to change their practice act was amended in committee to remove sections which were objected to by the medical profession. The bill which won final passage included an increase in the license fee, an increase in per diem for members of the chiropractic board, an increase in the pay for the secretary of the board and a section which allows the board some control over advertising by chiropractors.

An attempt to change the statute of limitations in malpractice cases died on the House Calendar for lack of time. The original bill would have added the provision that action for malpractice must be brought within two years after the date of discovery in all cases. The bill which died on the House calendar had been amended to the point where the discovery provision was limited to foreign substances allowed to remain in the body. And in no case would the limits run longer than 10 years from the act. In all other cases the statutes would have run two years from the act.

Bills aimed at placing Blue Cross and Blue Shield as well as other non-profit health service corporations under regulation of the Missouri Department of Insurance died in committee.

An MSMA-sponsored measure which provides that the procure-

(Continued on back page)

Plan Occupational Health Congress Meet In Award

The program has been announced for the American Medical Association's 29th annual Congress On Occupational Health which is scheduled at the new Stouffer's Riverfront Inn, St. Louis on September 15 and 16 of this year.

The meeting opens at 9 a.m., Monday, September 15 and concludes after the afternoon session the next day.

Doyle C. McCraw, M.D., president of the Missouri State Medical Association; Hubert Ritter, M.D., president of the St. Louis Medical Society; and Charles Miller, M.D., president of the St. Louis County Medical Society, will all bring greetings to the conference.

Among the speakers will be Gerald D. Dorman, M.D., new president of the American Medical Association.

Missourians named to participate other than the three officers listed above include Richard A. Sutter, M.D., St. Louis, who will preside at the Tuesday morning session, and George E. Scheer, M.D., St. Louis, who will participate in a Tuesday afternoon seminar.

MSMA
News

Missouri Governor Warren E. Hearnes is shown here signing Senate Bill 43, the Uniform Anatomical Gift Act, in his office in the Capitol Building on May 28th. The bill became law 30 days after being signed by the Governor. Representing the Missouri State Medical Association, one of the principal sponsors of the legislation, was Executive Secretary Raymond McIntyre, left. Others in the photo are from the left Carol Miserocchi, St. Louis, who has undergone a kidney transplant; Senator Albert Spradling (D-Cape Girardeau); Walter A. Beckers, President of the Metro Area Kidney Foundation; Senator A. Clifford Jones (R-St. Louis County); and Senator Richard Webster (R-Carthage). Senator Spradling was the principal sponsor of the bill. Joining him in sponsorship were Senators Jones and Webster. House Majority Floor Leader Richard J. Rabbitt, (D-St. Louis), handled the bill in the House but could not be present for the signing ceremony.

UMBRELLA
(Continued)

ment, processing and distribution or use of whole blood, plasma, blood products, blood derivatives and human organs are not a sale but a rendition of a service died in the Senate Public Health Committee after being passed by the House.

A bill which would have provided for a system of medicolegal examiners in the state died in the House Economics Committee. The measure called for the expenditure of approximately $600,000 yearly and thus ran into fiscal problems along with many other measures.

Attempts to change the Missouri drinking driver law also lost out when bills on this matter failed to clear committees of both houses.

A bill which would have given Missouri a Good Samaritan Law died on the House Calendar for lack of time.

The Senate killed a bill which would have liberalized Missouri's laws on abortion.

Dead in committee was a bill which called for the mandatory licensing of medical laboratories in the state.

Also failing to advance during the session were bills calling for the licensing of opticians, psychologists, laboratory technicians and hearing aid dispensers.

Rubella Vaccine Grant Received

The Missouri Division of Health has received a grant of $101,014 from the Public Health Service for the purchase of Rubella vaccine and its distribution.

No date has been set as yet for the start of a vaccine program in Missouri due to the lack of information concerning the availability of the Rubella vaccine. As of early July only one manufacturer had been licensed to produce the vaccine.

Preliminary plans call for the vaccination of children ages 1-12 years with emphasis on the young school age child.

The Division of Health will distribute available vaccine through normal channels with early concentration on those in Head Start Programs. Also scheduled to be vaccinated are children in Title 1 school programs and those covered by Child Care Conferences.

Division of Health Programs are located in all portions of Missouri other than in St. Louis and Kansas City. The metropolitan areas have their own programs.

A meeting was held in Jefferson City on May 18 at which time officials of the Division of Health discussed plans for the Rubella vaccine program with members of the Missouri State Medical Association's Committees on Maternal Welfare and Infant and Child Care.

Dr. McGinty Elected

Charles P. McGinty, M.D., Cape Girardeau, has been elected President of the recently formed Missouri Chapter of the American College of Surgeons. His election took place at the annual conference at Tan-Tar-A. Next year's meeting will also be at Tan-Tar-A on May 7 and 8.

Elected to serve with Dr. McGinty were Frederick J. McCoy, M.D., Kansas City, vice president and president-elect; John S. Spratt, Jr., M.D., Columbia, Secretary-Treasurer.

Washington

(Continued from page 629)

health care system for the benefit of all the American people. There are many complex factors involved that will call for the wholehearted dedication and contribution of all in the medical profession and in government."

"We believe Dr. Egeberg will be able to bring about the necessary close coordination between government and private sectors in the health care system," Dr. Wilbur said in a supplementary statement. "This is vital to constantly advance and expand the ability to provide quality health care for all Americans."

Dr. Egeberg, 65, is a large, bluff man of Norwegian stock who demonstrated a sense of humor at his first news conference. He is a member of the AMA and a diplomate of the American Board of Internal Medicine. Generally considered a moderate liberal on health matters, he served on several advisory commissions during the Kennedy and Johnson Administration and on the state level in California. One of his major interests has been health care of the poor and he arranged for the USC medical school to be the medical consultant for the neighborhood health center in the Watts district of Los Angeles.

At his first news conference in HEW, he classified delivery of health care as almost the department's number one problem. He said medicare now is "rather well established" in solving a problem. But medicaid, he said, "has run afoul of a number of things, and I don't know that one can blame any one person or any group for this."

A member of the army medical corps in World War II, he was personal physician and aide-de-camp to General of the Army Douglas MacArthur, 1944-1945.

Golden Trumpet Award to AMA Speakers Program

The American Medical Association's Speakers Program has been awarded a Golden Trumpet Award in competition sponsored by the Publicity Club of Chicago. The award cites the Speakers Program as the best public relations special program conducted by a nonprofit organization during the past year.

Since the Speakers Program was initiated in March, 1967, 1,500 physicians have been trained as public speakers in 38 seminars conducted around the country by AMA staff. The program also includes placement of physician speakers who are experts in various health and medical subjects.

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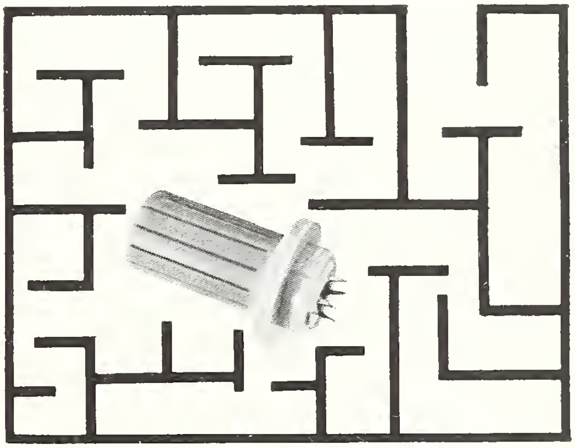

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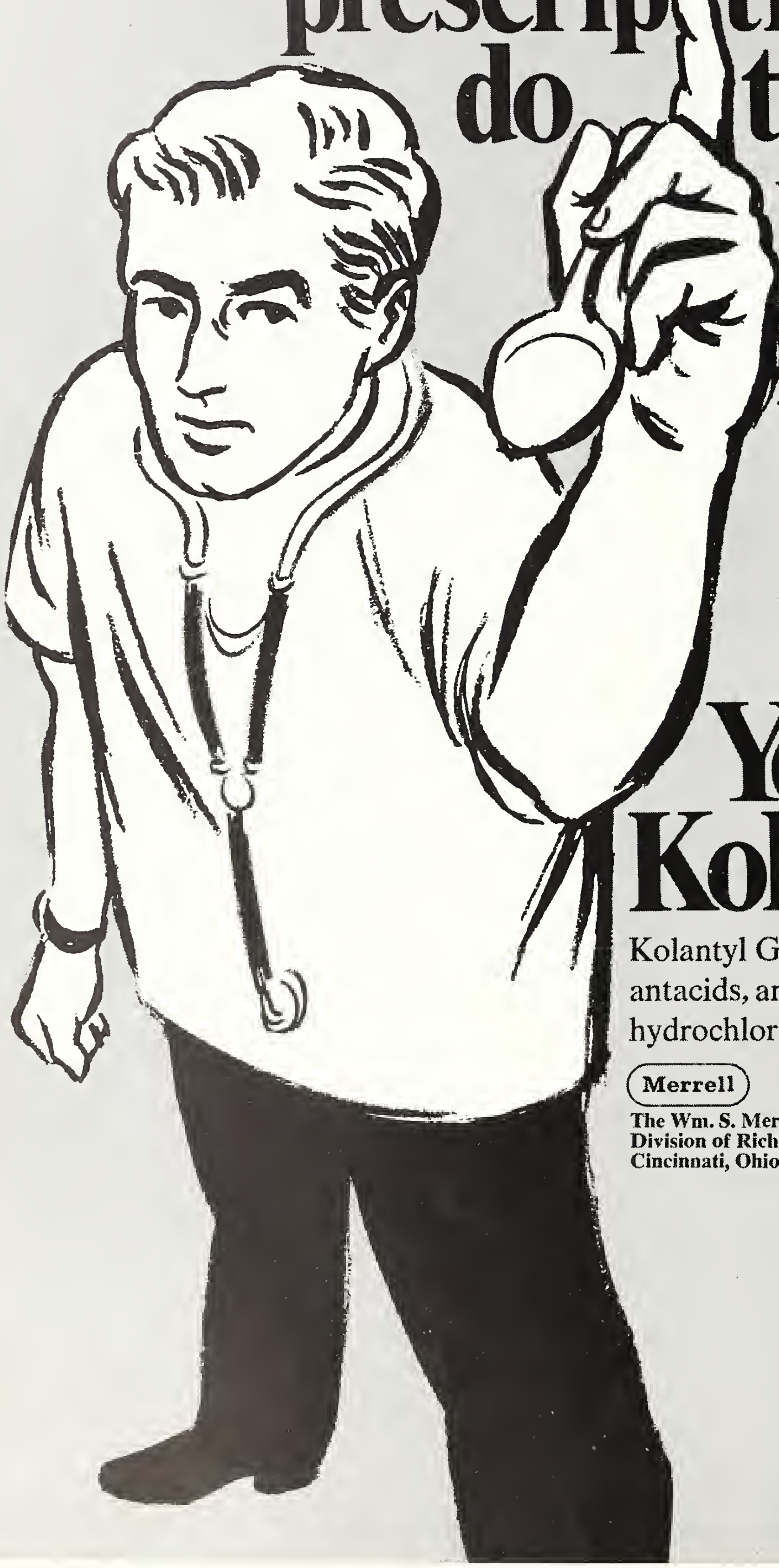

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The Council Reports

Meeting of June 14-15, 1969

The MSMA Council met at the Chase Hotel in St. Louis on June 14-15, 1969 with Chairman Gerald L. Miller, M.D., Kansas City, presiding. Those in attendance were Drs. Miller; Doyle C. McCraw, Bolivar; Joseph L. Fisher, St. Joseph; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; David N. Kerr, St. Louis; John N. Martin, St. Joseph; Lysle M. Bach, Hannibal; Walter T. Gunn, St. Louis; Robert A. Mayer, Clayton; William D. Bradshaw, Clinton; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; Eugene T. Hansbrough, Poplar Bluff; Stanley S. Peterson, Springfield; J. Loren Washburn, Versailles; Hector W. Benoit, Jr., Kansas City; Arthur W. Neilson, St. Louis; Robert W. Kelley, St. Louis; William D. Mayer, Columbia; Richard Yore, St. Louis; Herbert Wiegand, St. Louis; Harold Roberts, Clayton; William See, Columbia; Guy N. Magness, University City; Joseph Edwards, St. Louis; Max Teare, Kansas City; Flavius Pernoud, St. Louis; Mr. John Noble, Kennett; Mr. T. R. O'Brien, St. Louis; Messrs. Ed Mothershead, Clayton; Gary Schnedler, Springfield; Allen D. Smith, Kansas City; Hollister Smith, St. Louis; Ray McIntyre, Bob Carroll and Royal Cooper, Staff, Jefferson City.

Dr. John Matthews, Chairman of the Legislative Committee, was assisted by Mr. Royal O. Cooper and Mr. Bob Carroll in reporting on legislative matters pertaining to the health field that were before the Missouri House of Representatives and Senate. *(An up-to-date report on legislation is included in the MSMA News Insert between pages 630-631.—* THE ED.)

Dr. Max Teare presented a report on the April 24 joint meeting of the Committees on Alcoholism and Mental Health. He said that it was agreed that the medical profession itself should receive first priority in programs aimed at gaining acceptance of alcoholism as a disease before an attempt is made to educate the general public. He pointed out that the 1969 House of Delegates had approved the Alcoholism Committee's recommendations to (1) survey general hospitals regarding admission of alcoholics, (2) urge local county medical societies to form Committees on Alcoholism, (3) initiate public education programs and (4) provide speakers on alcoholism. He stated that forms for the survey are being prepared.

Dr. Teare stated that it was decided that the two Committees initiate liaison with the Missouri Bar Association in order to explore areas of possible joint endeavor regarding legal definition of and better handling of the alcoholic. It was agreed that similar liaison should be established with the Missouri Probate Judge Association, State Highway Patrol and other statewide law enforcement organizations to explore their problems regarding alcoholism. Also, it was agreed that drug abuse control be a responsibility of the two committees.

Dr. See reported that the Committee on Maternal Welfare had approved the use of hospital delivery room suites for "clean" gynecologic procedures in the interest of health economics and efficient use of hospital space.

A report on the May 18 joint meeting of the Committee on Maternal Welfare and the Committee on Infant and Child Care was given by Dr. Magness. It was at this meeting that Dr. Belden of the Missouri Division of Health discussed the Division's role in regard to the new Rubella vaccine. The Committee approved the proposed Rubella Program being sponsored by the Division of Health.

(Current developments of this program are reported in the MSMA News Insert between pages 630-631.)

A discussion of the Rubella Program emphasized the need for the program to be carried out under the guidance of the medical profession. It was suggested that local medical societies should become involved in the program at the outset and offer assistance and guidance.

Dr. Wiegand, Chairman of the Medical Economics Contract Committee, said that Mr. Proctor Carter, Director of the Division of Welfare, had attended the meeting of his committee and commented upon the fine physician cooperation with the Medicaid program in Missouri.

In regard to classification of Medicaid payments by the Division of Welfare, the Committee approved the motion to name a small sub-committee to discuss Medicaid payment procedures with Mr. Carter and review these procedures in the light of the agreements existing when the program went into effect.

Dr. Mayer, Councilor for the Fourth Councilor District, reported that St. Louis County Medical Society will initiate a new program this fall by having a joint meeting with all hospital staffs in St. Louis County.

Dr. Gunn, Third District Councilor, stated that the St. Louis Medical Society is polling its membership on attitudes toward smoking and will advise people in St. Louis accordingly.

Dr. Miller, Councilor for the Seventh District,

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stated that membership applications from three osteopaths have been processed by the Jackson County Medical Society and two osteopaths have been elected to associate membership.

Councilor McAlhany of the Eighth District reported on the Community Comprehensive Health Care Planning Seminar sponsored by Greene County Medical Society in May. He stated that the seminar established the Medical Society's leadership in providing health care. An outgrowth of the meeting is the establishment of a community medical services council in Springfield. *(See page 638 for a description of the Seminar.—*THE ED.)

Dr. Stricker, Ninth District Councilor, said that Dr. and Mrs. Doyle C. McCraw had attended a recent meeting of the Mid-Missouri County Medical Society at which legislators were present.

President Doyle C. McCraw reported that he and Mr. Royal Cooper, Field Secretary, have attended 20 medical meetings since the Annual Session in March, including visits to 11 county medical societies.

Dr. Roberts, Chairman of the Committee on Diabetes Mellitus, discussed the results of numerous diabetic detection studies performed during the past year, as reported to the Committee by Dr. Meinershagen of the Missouri Division of Health. He recommended that more comparison studies should be made before a standard technique is adopted.

Dr. Neilson, Chairman, preceded his first report from the Committee on Environmental Health with a preamble designed to emphasize the seriousness of current problems of environmental health and their threat to the welfare of mankind. *(Dr. Neilson's preamble has been published on page 672 of the Editorial Section of this issue of* MISSOURI MEDICINE *in an effort to bring this problem to the attention of all MSMA members.—*THE ED.)

After consultations with personnel of the Missouri Conservation Commission, the Committee agreed that the water pollution problem should be attacked first by directing educational programs toward members of the public to stimulate interest. Also, these educational materials should carry the MSMA heading and a statement indicating that the material or program was provided through "the courtesy of your physician."

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It was decided by the Council that the Environmental Health Committee should submit more detailed information concerning its proposals before action should be taken concerning financing its programs.

Dr. Neilson also reported on Resolutions which the MSMA Delegates will introduce in the July AMA House of Delegates session in New York.

Dr. Robert Kelley was introduced to the Council as a new appointee to the Governor's Advisory Council on Comprehensive Health Planning. As such, Dr. Kelley asked for a statement from the MSMA concerning the CHP Council's proposal that consideration be given to the development of a division in the State Comprehensive Health Planning Agency to insure liaison between the health disciplines in Missouri. Purpose of the Division would be to compile information about all health organizations and agencies in Missouri, including funding and duties of federal, state, local or private agencies in the health field. It is proposed that the Division be financed by contributions from all agencies involved in planning for comprehensive health care and be responsible to those agencies.

The MSMA Council instructed Dr. Kelley to inform the Governor's Council that the MSMA approves the proposal and its purpose, but feels that the Division should be financed with funds of the Comprehensive Health Planning Agency.

Dr. Edwards stated that the Ad Hoc Committee to Study a New Level of Medical Practitioner is now involved in an intensive study of the need for more physicians and more ancillary help for physicians now practicing and believes that training and educational requirements for the latter should be set up by the medical schools and coordinated at the medical school level and, possibly, supervised by the Medical Association.

Regarding the "new medical practitioner," he reported that the Committee recommends that any licensure should be under the State Board of Registration for the Healing Arts. A member of the Ad Hoc Committee, who also is a member of the State Board, will relay this information to the Board at its June 20 meeting.

Dr. Edwards stated that the Committee plans to outline additional recommendations and, hopefully, a pilot program after conferring with school authorities. The Council requested that the Ad Hoc Committee proceed with the study and report further to the Council.

(Continued on page 683)

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Notes of interest from Here .... and There

Dr. W. D. Bradshaw, Clinton, has been appointed as a member of the State Board of Health by **Gov. Warren E. Hearnes.** The announcement was made by **Senator William J. Cason**, Clinton. Dr. Bradshaw, a former mayor of Clinton, is Councilor for the MSMA Sixth Councilor District. He replaces the late Dr. O. B. Barger of Harrisonville on the Board.

Dr. Glenn O. Turner, Springfield, was elected president of the Missouri Heart Association when more than 80 Heart Fund volunteers, directors and members of the Association met for the 20th Annual Meeting in St. Louis recently. Dr. Turner is director of the Heart Station for St. John's Hospital and senior partner of the Glenn Turner Clinic of Internal Medicine in Springfield. He also is program director and medical director of the Ozarks Regional Comprehensive Cardiovascular Care Unit. Other officers elected were **Dr. Brent Parker,** St. Louis, president-elect; **Dr. William H. Ames**, St. Joseph, vice-president; **Dr. Lawrence K. Epple**, Mexico, secretary; and **Mr. Chester G. Smarr**, Columbia, treasurer.

Dr. John M. Brooks, honorary member of the Dallas-Hickory-Polk-Dade County Medical Society and the MSMA, celebrated his 100th birthday on June 29. Dr. Brooks practiced in Golden City for more than 50 years. He lived in retirement near Bolivar until a few years ago when he moved to 840 S. Pickwick in Springfield. **Dr. Doyle C. McCraw**, President of the MSMA, was a guest at the birthday party.

After four years as Chairman of the Department of Medicine and Program Director of the Danciger Institute for the Health Sciences at Menorah Medical Center in Kansas City, **Dr. Aaron D. Freedman** has resigned to accept appointment as Professor of Medicine and Associate Dean for Graduate Studies at the University of Pennsylvania School of Medicine. He will be succeeded by **Dr. Nathaniel Winer**, who has been serving on the Menorah staff as Director of Endocrinology Research and Head of the Section on Metabolic Diseases of the Department of Medicine.

Dr. James C. Sisk, St. Louis, has been named president-elect of the Alumni Association of the Washington University School of Medicine. Dr. Sisk, assistant professor of clinical medicine at Washington University, will succeed **Dr. Marshall B. Conrad** as president of the 4,000-member organization for the coming year. Dr. **Guerdan Hardy** was elected vice-president and **Dr. Richard W. Hudgens** was reelected secretary-treasurer. **Dr. Melvin Goldman** is the retiring president.

Mr. Ted O. Lloyd, executive director of the Missouri Hospital Association, was the principal speaker at the dedication of the new Farmington Community Hospital on June 22, 1969. **Mr. Stuart Landrum,** president of the Hospital's Board of Directors, was master of ceremonies. **Mr. E. J. Durham** is the Hospital Administrator and **Dr. C. E. Carleton** is Chief of Staff. Staff physicians are **F. R. Crouch, M.D.; George L. Watkins, M.D.; Alvan G. Karraker, M.D.; R. A. Huckstep, M.D.; C. W. Chastain, M.D.; G. A. Oliver, M.D.; Tom R. Burcham, M.D.; J. A. Armantrout, D.O.; and David McFadden, D.O.** Dr. Huckstep reports that all funds for construction of the new hospital were raised locally.

Dr. Stanley S. Peterson, Springfield, was the featured speaker at the 25th Anniversary celebration of the founding of St. Vincent's Hospital in Monett. **Mr. H. O. Lloyd** of the **Missouri State Hospital Association** also appeared on the program. The hospital is operated by the **Sisters of St. Vincentia.**

Dr. H. V. Guhleman, Jr., Jefferson City, received the annual Illustrious Alumnus Award presented by the Jefferson City Senior High School Alumni Association. In naming him for the award, the Association cited Dr. Guhleman's special interest and activities in the area of mental health service in small colleges with emphasis on the emerging problem of drug abuse. In addition to his private practice, Dr. Guhleman is a clinical professor of Psychiatry, University of Missouri School of Medicine and chairman of both the University of Missouri Medical School Advisory Committee and the Mid-Missouri Mental Health Center Advisory Committee.

Dr. Denis Cavanagh, St. Louis, is one of five U. S. physicians whose comments on treatment of uterine rupture were included in the June 16 issue of *Modern Medicine.* Dr. Cavanagh is professor and chairman of the Department of Gynecology and Obstetrics, St. Louis University School of Medicine.

Dr. Paul C. Wheeler, Columbia, son of **Dr. and Mrs. Kenneth P. Wheeler,** Fredericktown, has been informed that one of his research papers has been selected for presentation at the Second International Symposium of Electrosleep and Electroanaesthesia to be held at Graz, Austria early in September. He and the junior co-author, **Dr. Lester E. Wolcott,** Columbia, will fly to Austria for the week-long meeting. Dr. Wolcott will give the oral presentation. All papers presented at the meeting will be translated simultaneously into Spanish, French, German, English and Russian.

Dr. Brent M. Parker, St. Louis, will serve as moderator for a session on "Remedial Heart Disease" at a Cardiovascular Symposium sponsored by the Iowa Heart Association in cooperation with the Great Plains Heart Association at the University of Iowa Health Center on September 19-20. Members of the MSMA are invited to attend the Symposium.

Community Health Care Planning Conference Sponsored by Greene County Medical Society

More than 100 persons whose jobs are related in some way to community health planning accepted Greene County Medical Society's invitation to attend a Community Health Care Planning Conference in Springfield recently.

The conference sought a community approach to health planning and provided a unique opportunity for those in attendance to become better acquainted with each other and each other's activities in the hope of combining efforts for better health service in the Springfield area.

Dr. Stanley S. Peterson, Conference Chairman, said that to his knowledge this is the first time this approach has been used and it should provide a needed boost in getting comprehensive health planning "off the ground" in the Springfield area.

The Conference established an unprecedented liaison in the community between the medical profession, the various health agencies and city government. It was designed to seek clarification of the various programs dealing with community health planning and to attempt elimination of overlapping which results when many agencies and organizations are involved. Representatives of all private, city, county, state and federal agencies and organizations concerned with community health planning were given an opportunity to discuss their agency's roles in local and area planning efforts. The group included spokesmen for hospitals, law enforcement agencies, nursing homes, physicians, dentists, city and county offices, state and federal agencies, ambulance services and churches, as well as representatives from the public library and general public.

A representative of the Greene County Welfare Department addresses members of other community health planning agencies at the recent Greene County Medical Society Planning Conference in Springfield.

Keynote speaker was City Manager David Burkhalter who said that "comprehensive health planning is covered by federal law and that the Springfield area might well take a good look at the benefits which could result from its utilization. Good planning in the health field is essential since competition for the health dollar is strong. Because so many agencies are participating in the health field, we may be utilizing some of our resources unwisely." Burkhalter said he finds himself "groping for answers" in the public health field and meetings, such as the conference, will be helpful.

As a direct result of the meeting, Greene County Medical Society has announced its sponsorship of a community emergency medical services council which will be made up of representatives from a number of Springfield-area agencies, such as law enforcement, ambulance service, physicians and others dealing in emergency medical services. The Council will utilize its resources to work toward definitive solutions to the problem of proper emergency medical care in Springfield and Greene County.

As another direct result of this meeting, the city government has asked the medical society to appoint a medical advisory committee to the city government. This committee will have official status and will be consulted on all matters dealing with community health planning.

In sponsoring this Community Health Care Planning Conference, the Medical Society has shown its willingness to lead as the captain of the health team in Greene County. Proceedings of the entire meeting were recorded and a summary is being prepared with recommendations concerning health care in the community, Springfield and Greene County. Copies of the summary will be sent to all members of the City Council, in addition to participants in the meeting. News media throughout the city of Springfield gave extensive coverage to the event.

Dr. Charles E. Lockhart, President of Greene County Medical Society, and Dr. Peterson expressed the hope that the various agencies will combine their efforts toward getting comprehensive health planning started.

Missouri Physicians Receive Questionnaire On Continuing Education Courses

In an effort to learn more about the continuing education patterns of Missouri physicians, the State Board of Registration for the Healing Arts is asking physicians to answer a questionnaire regarding "postgraduate courses or continuing education programs" in which they have participated during the past year. The special communication is being included with the Board's regular renewal application forms which are being received by physicians whose state licenses are due.

According to *The Greater Kansas City Medical Bulletin*, the Board decided to conduct its informal survey following a discussion of the various aspects of relicensure. A number of official licensing agencies and other professional medical organizations around the country are considering the idea of requiring a minimum amount of continuing education as a prerequisite for relicensure. Some specialty groups already utilize the principle as a requirement for continued membership.

Proponents of the idea argue that by requiring a physician to take a certain amount of continuing or refresher training, the profession would take another step toward its primary goal of providing the best possible health care for the public.

A spokesman for the Board of Healing Arts told the *Bulletin* that the Board will discuss the subject further when the replies from the questionnaire are tabulated. A physician receiving the questionnaire is not required to complete it or return it to the Board. It is hoped, however, that enough physicians will cooperate to give the Board a fair sampling of the continuing education patterns in Missouri.

Dr. John I. Matthews, Secretary of the Missouri State Medical Association, was a guest at the Board meeting when the idea of the questionnaire was approved. He indicated personal approval of the project.

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Special Feature

Abstracts From the Missouri Regional Meeting of the American College of Physicians

MISSOURI MEDICINE is proud to publish additional abstracts of papers presented at the 1969 Missouri Regional Meeting of the American College of Physicians. Abstracts published here are of papers that were read in title only. Abstracts of nine papers that were presented in full appeared in the June, 1969 issue of this Journal. Raymond G. Slavin, M.D., F.A.C.P., St. Louis, served as Chairman of the Program Committee for this meeting.—THE EDITOR.

Experience With Permanent Endocardial Pacemakers

R. K. BARNETT, M.D.

From the University of Missouri School of Medicine

Permanent transvenous endocardial pacemakers have been employed for the therapy of complete atrioventricular heart block in 59 patients during the past four years at the University of Missouri Medical Center. No mortality occurred with the implantation. However, there were six deaths (10.2%) during the follow-up period (mean interval of follow-up, 15.5 months). No deaths occurred during the first one-month, postimplantation.

Thirty-nine patients sustained Stokes-Adams attacks prior to pacemaker therapy. Of this group, three have died (8%) (mean follow-up, 16.43 months) following pacemaker insertion. In a comparable group of 25 patients treated medically prior to the availability of pacemakers, the mortality was 68% during an 18-month follow-up interval.

Eleven cases required replacement of the battery generator because of energy depletion. In this group, the mean duration of battery life was 20.2 months.

Complications directly related to implantation of the pacemaker unit were as follows:

Perforation of the ventricle	=	2	(3.4%)
Migration of endocardial electrode	=	12	(20.4%)
Dehiscence of wound	=	1	(1.7%)
Infection of wound	=	1	(1.7%)
Breakage of electrode insulation	=	2	(3.4%)
Loose electrode connections	=	1	(1.7%)
Malposition of endocardial electrode	=	1	(1.7%)
Hemorrhage into soft tissues	=	2	(3.4%)

Late complications were as follows:

Wound "breakdown" and infection	=	4	(6.8%)
Competition with patient's rhythm	=	12	(20.4%)
Increasing threshold at electrode tip (exit block)	=	6	(10.2%)
"Runaway" pacemaker	=	2	(3.4%)

The causes of death in six patients were rupture of aortic aneurysm, one case; pacemaker failure, one case; unknown, four cases.

The abruptness with which the increased threshold ("exit block") appeared at the endocardial electrode site in six patients was alarming in that no prediction could be made of the event. Cerebral ischemic symptoms often were the presenting symptom as failure to pace occurred. The duration of the period of high threshold varied from hours to nine days and responded in five cases to simultaneous administration of intravenous potassium chloride and corticosteroid and in one case to intravenous potassium chloride alone. The earliest that this complication occurred was nine days postimplantation and the latest was 55 days postimplantation. The term, "exit block," is not judged to be an acceptable term for this problem since, when it occurs in association with the use of demand pacemakers, the pacing unit fails to perceive the QRS as well as failing to stimulate the myocardium. In such instances, both an "entrance" and "exit" block appear to be present. It is recommended that patients receiving permanent pacemaker therapy be advised of the possibility of this complication occurring from one to eight weeks postimplantation and that each be taught during the hospital stay to accurately take his pulse in order to detect its presence.

Special attention should be directed to fixation of the endocardial electrode at its site of entrance into the vein since its movement at this point within the first few days required repositioning of the electrode in 20.4% of cases.

A substantial reduction in mortality is achieved with electrical pacemaker therapy of patients with complete atrioventricular heart block. No mortality was associated with insertion of the pacemaker unit by the transvenous route using an endocardial bipolar electrode, and postimplantation morbidity, although frequent, usually is reversible with appropriate management.

* * *

A Review of 200 Cases of Infectious Mononucleosis

DIANE BRUKARDT, M.D.

Associate Director, Student Health Service,
University of Missouri

Before assessing the usefulness of various treatments, such as corticosteroids, it is necessary first to have some information concerning the spectrum of the natural history of the disease. Between April 1, 1964 and March 31, 1966, we compiled information from 220 successive patients with infectious mononucleosis at the Student Health Service of the University of Missouri. The minimal criteria for diagnosis included (1) enlargement of at least posterior cervical nodes, (2) relative and absolute increase in lymphocytes of at least ten days duration with atypical lymphocytes and (3) a heterophile antibody reaction or a positive Mono agglutination test. Corticosteroids were not routinely used.

Patients were commonly seen within the first week of illness and, frequently, within the first or second day of symptoms. Sixty-three percent required hospitalization at some time; 37% were followed carefully on an outpatient basis and were able to continue studies during the illness. Four percent withdrew from school for medical reasons.

The majority had symptoms for about two weeks and about 2% had symptoms for 12 to 16 weeks. Loss of anorexia and return of a normal appetite was a more reliable clue of improvement than laboratory studies.

Duration of hospitalization averaged five to seven days with extremes of one day to 40 days. During the first week of symptoms, 40% had a leucopenia; lymphocytosis developed between the second and 14th day and abnormal blood findings remained one to two months. The presumptive heterophile titer reaches its highest peak during the second and third week of symptoms and usually after there are more than 50% lymphocytes seen on the blood smear. However, the heterophile tests are negative in 40% during the first week, negative in 40% during the second week and return to negative in 40% during the third week. Use of the Mono agglutination test is rapid and reliable and has replaced the heterophile test routinely.

Eighty-five percent of patients presented with a sore throat, although fever, jaundice, morbilliform rash, lymphadenopathy, periorbital edema, fatigue, nausea, abdominal pain, headache and emotional lability were other presenting symptoms. Eleven percent were afebrile throughout the illness.

Peak incidence occurred in November and February about six weeks after students returned to the campus. Possible incubation period and epidemiology are discussed.

Some of the basic research being done concerning etiology and pathogenesis noted in the literature and complications seen in this series and in the literature are discussed.

* * *

Quantitative Effects of Physical Conditioning on the Exercise Electrocardiogram in Subjects With Arteriosclerotic Heart Disease

JOHN D. RADKE, M.D. AND JAMES F. MCCOOL, M.D.

From the Department of Medicine,
St. Louis University School of Medicine

Exercise electrocardiograms of 100 men with arteriosclerotic heart disease, with a mean age of 48 years, were analyzed prior to and after an average of 33-months participation in a program designed to enhance physical fitness.

Principles of quantitative exercise electrocardiography were applied using standard intensities of exercise on a bicycle ergometer and standard qualtitative analysis of the electrocardiogram. The ST J displacement and slope of the 0.08-second ST segment were measured.

Physical fitness improved in 64% of subjects with concurrent improvements in heart rate, systolic blood pressure and predicted maximal oxygen uptake. Physical fitness improved in a similar percentage of subjects with initial normal, borderline or abnormal exercise EKG.

Changes in the exercise EKG were related to changes in physical fitness in subjects with initial borderline or abnormal exercise EKG. Improvement in physical fitness resulted in exercise EKG improvement in 79% of subjects with initial borderline or abnormal tests. Similarly, deterioration of the exercise EKG occurred in 70% of subjects with initial normal exercise EKG whose physical fitness worsened.

In the subjects with improved exercise EKG, the mean ST J displacement decreased from 1.74 ± 0.34 mm to 0.78 ± 0.16 mm ($p < 0.001$). The mean slope increased from 0.16 ± 0.18 mv/sec to 0.91 ± 0.13 mv/sec ($p < 0.001$).

In the subjects with deteriorated exercise EKG, the mean ST J displacement increased from 0.90 ± 0.15 mm to 1.22 ± 0.16 mm ($p < 0.025$). The mean slope decreased from 1.06 ± 0.15 mv/sec to 0.25 ± 0.16 mv/sec ($p < 0.001$).

The present study demonstrated that a supervised program of physical conditioning improved both physical fitness and the exercise EKG of subjects with arteriosclerotic heart disease. Improvement of the latter parameter was reflected by a decrease in ST J displacement and an increase in the slope of the 0.08 second ST segment. Improvements in both physical fitness and the exercise EKG are a direct function of adherence to the exercise program.

* * *

Use of 5-Fluorocytosine in Cryptococcus Meningitis Resistant to Amphotericin-B

P. A. REDDY, M.D., C. A. CHRISTIANSON, M.D., F.A.C.P., H. LARSH, PH.D. AND D. ROGERS, M.T.

From the Missouri State Sanatorium, Mount Vernon

Recently, 5-Fluorocytosine (RO2-9915), an antimetabolite of cystine with specific fungistatic properties, has been found to be beneficial in the treatment of systemic *Candidiasis* in laboratory animals and has been used successfully in the treatment of certain humans with this infection. Also, it has been used effectively in *Aspergillus fumigatus* infected laboratory animals as well as in the treatment of *Cryptococcus neoformans*, both in the laboratory and clinically.

5-Fluorocytosine is administered orally and appears to be well tolerated. During a 28-day period of administration to a 54-year-old white man who had Cryptococcus meningitis resistant to Amphotericin-B both by I.V. and cisternal routes, the patient was able to take his medications without seemingly untoward effects and without problems often associated with Amphotericin-B administrations. During the course of treatment, the patient's mental status improved and, for the first time, a culture was obtained intracisternally which was negative for Cryptococcus neoformans. This appeared to be of significance because, since 1955, although the individual received several courses of Amphotericin-B, both the spinal fluid and later the intracisternal fluid cultures have remained positive for Cryptococcus neoformans.

In this period of 28 days during which he received a dose of 1 gm q.i.d., blood studies and urinalysis were done twice weekly and no abnormalities were noted. In addition, weekly BUNs, SGTs and Alkaline Phosphatases were done and these, too, remained within normal limits.

In view of the fact that Amphotericin-B is accompanied by several undesirable side effects even though the drug has been the treatment of choice in Cryptococcal meningitis and in view of the fact that resistance has developed to Amphotericin-B, this new antifungal agent, 5-Fluorocytosine, may prove to be of significant benefit in the treatment of Cryptococcosis. It also deserves further clinical investigation in Aspergillosis and systemic Candidiasis.

* * *

Left Axis Deviation (LAD) in Complete Left Bundle Branch Block (LBBB) Correlation to Clinical Heart Disease and Radiographic Enlargement of the Heart

R. RÖDE, M.D.

From the University of Missouri School of Medicine

LBBB customarily is considered to indicate organic heart disease (HD) with a poor prognosis in general, depending upon the severity of the underlying or associated cardiac pathology. Cases with a long survival time have sporadically been reported, but usually are considered as exceptions.

A recent study of life insurance applicants with LBBB, who otherwise showed no signs of HD, demonstrated a completely normal morbidity and mortality rate.

EKG findings in 245 patients with LBBB have been analyzed in an attempt to establish criteria for separating this benign form of LBBB from the one associated with a more ominous prognosis.

Group I comprised 155 cases with a positive history or clinical findings of significant cardiovascular disease or both, while both factors were absent in Group II (90 patients).

RESULTS

LAD greater than –30° was seen in 65% in Group I compared to 40% in Group II.

LAD more than –60° occurred in 25% in Group I contrasted to only 5% in Group II.

AV conduction disturbances were present in 45% in Group I (Atrial fibrillation and 1° AV block), and 28% in Group II (1° AV block only). Cardiac enlargement, as read by the radiologist, was present in 80% in Group I and 26% in Group II.

The results of this study suggest that the severity of heart disease and, hence, the prognosis, for patients with LBBB can be determined in part by the degree of left axis deviation and the presence or absence of atrioventricular block.

* * *

Catecholamine Transport by the Lymphatic System

KENNETH E. WALTER, M.D., F.A.C.P. AND
RICHARD W. ENTRUP, M.D.

From the J. J. Cochran Veterans Administration Hospital and the Department of Medicine, St. Louis University School of Medicine

The fate of endogenously liberated catecholamines (CAT) is a result of the combination of receptor uptake, rebinding by nerve endings, metabolic degradation and venous washout. This study was undertaken to investigate the role of the lymphatic system in providing an additional pathway.

In ten open-chest dogs anesthesized with chloralose, the thoracic duct lymph was drained and analyzed for Norepinephrine (NE) and Epinephrine (EPI) by the trihydroxyindol method. After control observations (C), a bout of ventricular tachycardia (T1) was electrically induced. This was followed by a recovery control period (RC). Then, a similar repeat bout of tachycardia (T2) and recovery (R) was carried out. These observation and collection periods lasted 30 minutes and the results are reported as ng/min (mean ± SEM).

Table 1 reveals a rise in NE* during T1, followed by a return to control during RC. A similar rise in NE** is seen during T2. The ensuing R value remains elevated.* The significance of this persistent elevation is at present under investigation. No significant changes are seen in the EPI or FLOWS (cc/min).

Endogenously released NE results in a rise in lymphatic NE. Thus, an additional pathway for catecholamine transport is demonstrated. The predominance of NE implies that the adrenal gland is not the primary source of lymphatic CAT.

---

* $p. < 0.001$.
** $p. < 0.01$.

TABLE 1

	C	*T1*	*RC*	*T2*	*R*
NE	0.16±0.16	6.28±1.26	0.13±0.09	5.68±1.60	5.85±1.18
EPI	0.00±0.00	1.12±0.72	0.26±0.15	0.20±0.14	0.58±0.33
FLOW	1.24±0.21	1.36±0.25	1.36±0.19	1.63±0.30	1.59±0.31

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The American Academy of Orthopaedic Surgeons will sponsor a four-day training course on emergency care and transportation of sick and injured persons on October 21-24 at the St. Louis Medical Society Building, 3839 Lindell Blvd.

The course is designed for ambulance attendants, nurses, firemen, police officers, safety engineers and rescue squads. It also is open to emergency room, Civil Defense, industrial health and public health personnel.

Introduced in St. Louis last year, the comprehensive training meeting was attended by rescue and health experts from St. Louis and 33 cities in nine states. The lectures and work practice sessions will be given in cooperation with faculty members from Washington University and St. Louis University Schools of Medicine, St. Louis Medical Society, St. Louis Chapter of the American Red Cross and St. Louis Fire Department.

Dr. Marshall B. Conrad, clinical professor of orthopaedic surgery at Washington University, is directing the training course.

Physicians and other instructors will discuss and demonstrate a wide variety of emergency medical situations. Traffic control at the accident scene, extrication from crushed autos, techniques of lifting and carrying and patient comfort en route to the hospital are among the procedures taught in lectures and practice sessions.

Additional information and registration forms may be obtained by writing to Dr. Marshall B. Conrad, 5505 Delmar Blvd., St. Louis, Mo. 63112.

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29th Annual Congress on Occupational Health

Stouffer's Riverfront Inn, St. Louis **Sept. 15-16, 1969**

Monday Morning, September 15

Presiding: George F. Wilkins, M.D., Boston, Chairman, AMA Council on Occupational Health

9:00 AM **Greetings and Introductions**
Doyle C. McCraw, M.D., President, Missouri State Medical Association
Charles Miller, M.D., President, St. Louis County Medical Society
Hubert Ritter, M.D., President, St. Louis Medical Society

9:10 AM **Address**—Gerald D. Dorman, M.D., New York City, President, American Medical Association

9:35 AM **Symposium on Aviation Medicine**
Disaster Medical Care at Airports, Francis C. Jackson, M.D., Professor of Surgery, University of Pittsburgh School of Medicine
Preparation of Overseas Travellers, Nicholas A. Pace, M.D., Medical Director, New York Executive Office, General Motors Corporation
Medical Aspects of General Aviation Safety, Stanley R. Mohler, M.D., Chief, Aeromedical Applications Division, AM-100, Office of Aviation Medicine, Dept. of Transportation, FAA, Washington, D. C.

10:50 AM **Discussion**

11:05 AM **Pollution Problems of Petroleum Industry,** Kieffer Davis, M.D., Medical Director, Phillips Petroleum Company, Bartlesville, Okla.

11:35 AM **Radiation Protection of Industrial Workers,** Thomas S. Ely, M.D., Eastman Kodak Company, Rochester, N. Y.

Monday Afternoon, September 15

Presiding: Packard Thurber, Jr., M.D., Vice-Chairman, AMA Council on Occupational Health, Los Angeles

2:00 PM **Symposium on Agricultural Occupational Hazards**
Health and Safety Problems of Agricultural Machinery, L. W. Knapp, Jr., Chief, Accident Prevention Section, Institute of Agricultural Medicine, University of Iowa, Oakdale, Iowa
Prevention and Treatment of Acute Pesticide Poisoning, Thomas H. Milby, M.D., Chief, Bureau of Occupational Health and Environmental Epidemiology, State of California—Health and Welfare Agency, Department of Public Health, Berkeley
Other Medical Aspects of Rural Occupational Health, Ben N. Saltzman, M.D., Past-Chairman, AMA Council on Rural Health, Mountain Home, Ark.

3:15 PM **Discussion**

3:30 PM **Adapting Tools to the Worker,** Speaker to be announced.

4:00 PM **Whiplash,** Charles J. Frankel, M.D., Department of Orthopedics, University of Virginia Hospital, Charlottesville, Va.

4:30 PM **Hiring the Hard-Core Disadvantaged,** Frank J. Kelly, M.D., Medical Director, Mason and Hanger Corp., Amarillo, Tex.

Tuesday Morning, September 16

Presiding: Richard A. Sutter, M.D., St. Louis, Member, AMA Council on Occupational Health; Chairman, MSMA Committee on Industrial Health

9:00 AM **Absenteeism and "Presenteeism" in Industry,** David Joe Smith, M.D., Assistant Medical Director, United States Steel Corp., Pittsburgh

9:30 AM **Symposium on the Nurse's Role in Pre-Placement Examinations**
Nurse Assistance to the Examining Physician, Edna Watson, R.N., Past-President, American Association of Industrial Nurses, Inc., Guide Lamp Division, General Motors Corp., Anderson, Ind.
Pre-Placement Health Screening by Nurses, Donald C. Bews, M.D., Medical Director, Bell Telephone of Canada, Montreal, Quebec
Reaction, R. Lomax Wells, M.D., General Medical Director, The Chesapeake and Potomac Telephone Companies, Washington, D. C.

11:00 AM **Rehabilitation,** John S. Young, M.D., Good Samaritan Hospital, Institute of Rehabilitation Medicine, Phoenix, Ariz.

11:30 AM **Physician's Award Ceremony,** Presentation of the Annual Physician's Award of the President's Committee on Employment of the Handicapped
Presiding, George F. Wilkins, M.D.

Opening Remarks and Presentation, Harold Russell, Chairman, President's Committee on Employment of the Handicapped

12:00 NOON Physician's Award Luncheon—"*U. S. Man on the Moon,*" Charles A. Berry, M.D., Director of Medical Research and Operations, NASA Manned Spacecraft Center, Houston

Tuesday Afternoon, September 16

Presiding: Forrest E. Rieke, M.D., Portland, Ore., Member, AMA Council on Occupational Health

2:00 PM Symposium on Measurement of Permanent Partial Impairment in Workmen's Compensation

Orthopedics, George E. Scheer, M.D., Chief Surgeon, Shriners' Hospital for Crippled Children, St. Louis

Heart Disease, Harold I. Griffeath, M.D., Associate Clinical Professor of Medicine, University of California-San Francisco

Psychological Aspects, Alexander H. Hirschfeld, M.D., Associate Professor of Psychiatry, Wayne State University, Detroit

AMA Rating of Impairment, Quentin W. Mack, M.D., Medical Director, Mountain States Telephone Co., Boise, Idaho

IAIABC Recommendations, Harry W. Dahl, Iowa Industrial Commissioner, Workmen's Compensation Service, Des Moines, Iowa

General Information

Registration: There is no registration fee for those who wish to attend the Congress on Occupational Health. The registration desk will be open from 8:30 AM until 5 PM on Monday, September 15 and Tuesday, September 16.

Hotel Reservations: A block of rooms has been reserved at Stouffer's Riverfront Inn for those attending the Congress. Reservations should be made directly with the hotel. Indicate that you plan to attend the Congress on Occupational Health.

Award Luncheon: Tickets for the Annual Physician's Award Luncheon at 12-Noon on Tuesday should be purchased at the registration desk on Monday or early Tuesday.

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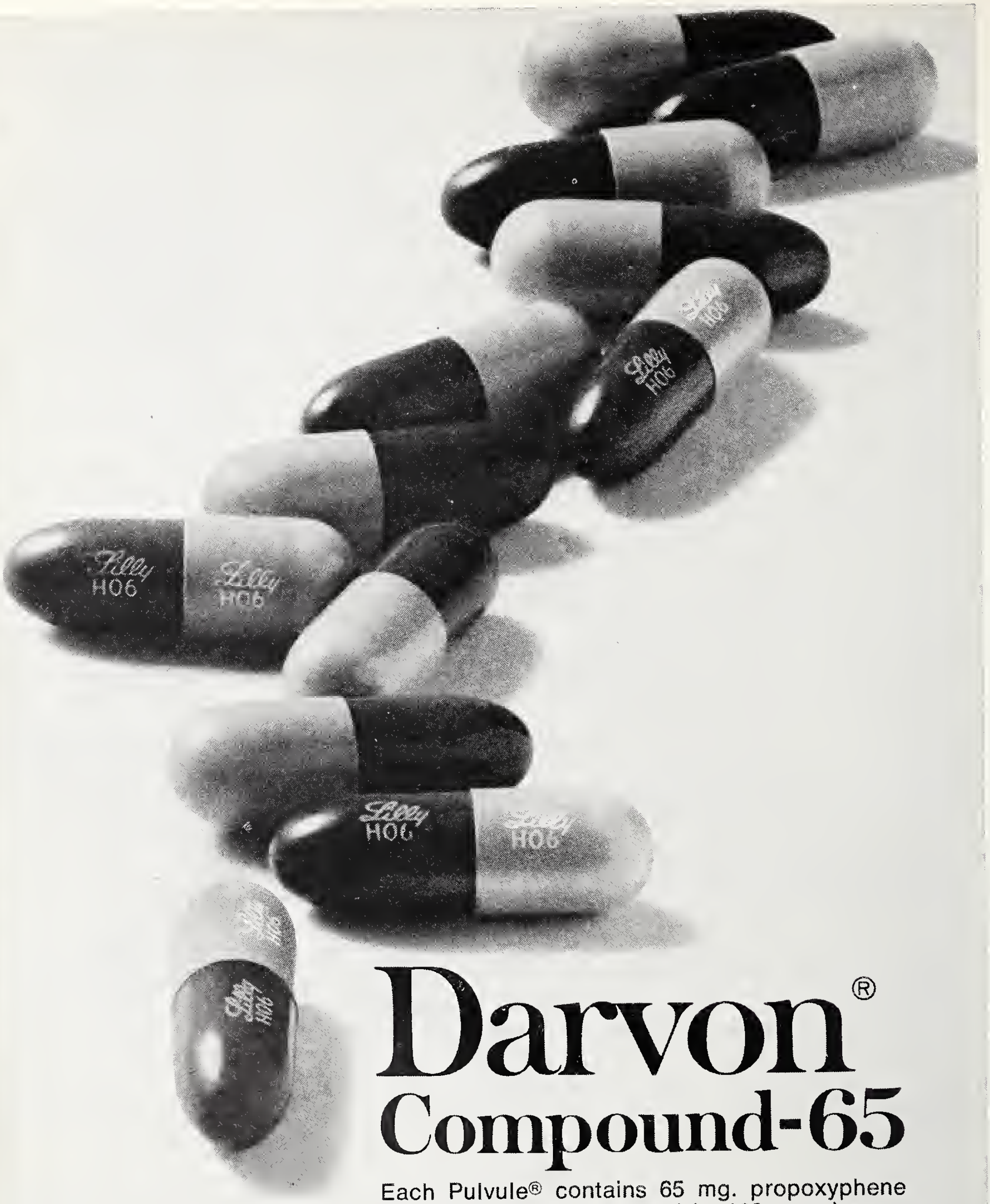

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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JACK ZUCKNER, M.D., JAMAL UDDIN, M.D. *and*
ROBERT H. RAMSEY, M.D., *St. Louis*

Adrenal-Pituitary Relationships With Prolonged Low Dosage Steroid Therapy in Rheumatoid Arthritis

Patients with rheumatoid arthritis and with relatively mild disease activity were treated with small daily doses of paramethasone combined with analgesics during a one-year period. Clinical effectiveness and the effect on the adrenal-pituitary axis were studied. The clinical response was favorable and manifestations of toxicity were minimal. Adrenal suppression resulted in most individuals during therapy. After steroid was discontinued, there was pituitary suppression and persistence of depressed adrenals in two patients when last treated. The authors are from the Section of Arthritis, Department of Internal Medicine, St. Louis University School of Medicine. Dr. Zuckner is Director of the Section. This investigation was supported by Eli Lilly and Company.

The advisability of administering steroids in very small doses to certain patients with rheumatoid arthritis, particularly those with relatively mild disease activity, has been questioned because of the doubtful clinical value of such minimal doses and because of the potential toxicity of such therapy. Since there is only limited information in the literature pertaining to very low dosage steroid administration, validation of its advantages and disadvantages becomes of vital importance when one considers the numerous preparations which are commercially available and contain minimal doses of a steroid combined with analgesics and which are in widespread use for the treatment of rheumatoid arthritis. This study was, therefore, undertaken to evaluate the efficacy and toxicity of this type of therapy, utilizing the steroid-analgesic preparation of 0.25 mg of paramethasone in combination with 32 mg of propoxyphene hydrochloride (Darvon®) and 500 mg of aspirin.

In a preliminary short-term, double blind cross-over study (Zuckner *et al*, unpublished data), 20 patients with rheumatoid arthritis were investigated to test the clinical effectiveness of this steroid-analgesic preparation (PPA) as compared to a similarly appearing tablet containing both analgesics in the same quantities, but without paramethasone. One tablet was administered four times daily, giving a total daily dose of paramethasone equal to 1.0 mg or equivalent to 2.5 mg of prednisone. The steroid-analgesic combination, PPA, proved superior to the analgesic control in 11 patients; eight patients could not distinguish between the two preparations or did poorly on both drugs; and one patient believed he did better on the analgesic combination without steroid. A proportion of patients with rheumatoid arthritis thus responded more satisfactorily to the preparation containing these small doses of steroid. It was thought advisable, therefore, to evaluate the clinical effectiveness and potential toxic manifestations of PPA administered over a prolonged period.

Methods

Thirteen patients who had rheumatoid arthritis with relatively mild disease activity were selected for study. Clinical data regarding these patients are listed in Table 1. Ten patients were women; most were 45 years old or older and had had arthritis for five or more years. The disease activity was rated as 1- or 2-plus in all but one patient who was classified as having 3-plus activity.

TABLE 1
CLINICAL DATA FOR 13 PATIENTS WITH RHEUMATOID ARTHRITIS

Patient	*Age*	*Duration of Disease* (YEARS)	*ARA* Classification* STAGE	CLASS	*Activity of Disease* (1-4+)
1	35	10	2	2	2
2	48	7	1	1	2
3	56	13	4	3	2
4	61	7	3	3	3
5	44	7	3	2	1
6	55	7	4	2	2
7	45	4	2	2	2
8	61	8	2	2	1
9	60	19	4	3	1
10	43	7	1	1	2
11	48	2	4	2	2
12	56	12	3	3	1
13	52	4	2	2	2

* ARA—American Rheumatism Association.

Patients received the PPA for approximately one year. The dose was one tablet four times daily or 1 mg of paramethasone daily. An attempt was made to gradually discontinue other drugs that were being administered at the time the study was initiated. These included oxyphenbutazone in one patient, triamcinolone in doses of 4 mg daily or less in two patients, phenylbutazone in one patient and propoxyphene hydrochloride in another. Gold salt therapy was continued throughout the study in three patients who were receiving this medication previously; in two patients, the total dose at the onset was greater than 1,000 mg.

Patients were examined at weekly intervals initially and at longer intervals as the study progressed, but no longer than once every three to four weeks. Patients were evaluated subjectively in reference to pain, stiffness and range of motion and objectively for joint tenderness, heat, swelling, thickening, fluid and range of motion. A composite estimate of these observations was recorded as poor, fair, good or excellent.

Evidence of toxic manifestations was sought at each visit. The blood pressure and body weight were recorded regularly. Laboratory tests included a blood count, sedimentation rate and urinalysis at least once monthly.

In an effort to evaluate the effect of prolonged low dosage steroid therapy on the adrenal-pituitary axis, 17-hydroxycorticosteroid (17-OHCS) levels[1] were measured in 24-hour urine specimens at different times during the study in most patients. The collection intervals were as follows: the control period before steroid (PPA) was started, and at approximately one, four and 12 months, respectively. The potential for the adrenal to be stimulated by ACTH during the time of PPA administration was tested in the following manner. At each interval, except the 12-month period, a second 24-hour urine collection was obtained for determination of 17-OHCS after intramuscular injection of 80 mg of adrenocorticotropin in gel form. Therapy with PPA was continued during these collection periods. Creatinine determinations also were performed on all urine specimens to check on the accuracy of collection.

After approximately 12 months of PPA therapy, the medication was stopped abruptly. At different intervals afterwards, 17-OHCS levels were determined in the urine on three successive 24-hour specimens. No medication was given during the first of these 24-hour collections. In the second 24-hour specimen period at each of these times, SU-4885 (metapyrone) was administered orally in dosages of 750 mg every six hours for four doses to test for pituitary responsiveness. Urine collections were continued for a third successive 24-hour period without any medication being given. These three-day collections were started on about the 2nd, 8th to 16th and 19th to 21st days following discontinuation of the steroid. In one patient, urine was collected at different intervals up to two months after therapy was stopped.

RESULTS

During the year's administration of the low dose of steroid in combination with analgesics, there was "good" improvement in ten patients and "excellent" improvement in two patients. In a few patients, the course was not satisfactory at all times throughout the 12 months of PPA therapy. Occasional administration of small doses of additional steroids orally was required, therefore, at infrequent intervals of a few days each in two patients, and intra-articular steroids were necessary in two others. A total of four injections of hydrocortisone acetate (each 25 mg) were given for this latter purpose. It was possible to discontinue other medications that were being administered daily when the study was started, namely triamcinolone in two patients, and oxyphenbutazone, phenylbutazone and propoxyphene hydrochloride in individual cases.

The usual clinical systemic manifestations of steroid toxicity were relatively infrequent, as demonstrated by the appearance of mild moon facies in only two patients and a few ecchymoses in another. Other reactions did not develop. There was no significant change in body weight and blood pressure. Significant alterations in the laboratory parameters, complete blood count, urinalysis and sedimentation rate did not occur. Some fluctuation was noted in the titre of rheumatoid factor in two patients, but this was inconsistent. An explanation for the variations was not readily apparent.

When the drug was discontinued abruptly at the end of the 12-month period, all patients suffered a withdrawal reaction. There was a worsening of joint symptoms, more pain and swelling and decreased range of motion. In several instances, reaction was severe. In addition, nausea, vomiting, weakness, headache and dizziness occurred in a few individuals. It is interesting to note that one patient who thought that he had not been doing well while receiving the medication also had marked withdrawal symptoms when the drug was stopped.

Results of 17-hydroxycorticosteroid (17-OHCS) determinations in the 24-hour urine specimens obtained at different intervals during and after therapy with PPA are shown in Table 2. Creatinine levels in all urine specimens collected during the study were consistent with the interpretation that all the urines were accurately obtained; values for 24-hour urines were usually 1 gm or more. Normal 17-OHCS values in 24-hour urine samples range between 4 mg and 14 mg for the men and between 4 mg and 10 mg for the women. Control values in three patients were slightly below the average, but all showed a normal response to ACTH stimulation before steroid was started. At the one to two month interval after PPA was started, all patients had low steroid values in the urine. After ACTH, all but one had greater than a twofold response. Approximately similar results are shown at the three- to six-month interval of PPA therapy. Three patients in this latter group, however, still had less than a normal steroid level of 4 mg after stimulation with ACTH. When PPA was terminated after 12 months of therapy, all but two patients showed depressed values of steroid in the urine. ACTH was not administered at this time.

At the interval of two- to five-days following discontinuation of PPA, all but four of the patients (# 2, # 4, # 7, # 10) had escaped from adrenal suppression, i.e., their urinary steroid levels had returned to normal values of 4 mg or more. Stimulation with SU-4885 at this time revealed that, except for three borderline responses (patients # 1, # 2, # 8) all patients had a 100% or greater increase in steroid levels by the second day of the 24 hour urinary collection after SU-4885 administration. Eight to 16 days after PPA was discontinued, urine collections were obtained from ten patients, including the four individuals who had decreased 17-OHCS levels at the two-to-five-day interval. Two of the latter four patients (# 2, # 10) still persisted with low steroid levels in the urine at this eight- to 16-day interval. Four others (# 1, # 3, # 5, # 8, who were normal previously, now had lower values. The response to SU-4885 became normal in patient # 1, but patient # 2 still was not stimulated to more than twice the value of the control. Patient # 8 was not tested at this latter interval, but was still below a 100% response to SU-4885 stimulation at the 19- to 26- and 56- to 58-day periods. Low 17-OHCS levels were again found before SU-4885 administration at the 19- to 26-day interval in two patients (# 2, # 10). This persisted at the 56- to 58-day period in patient # 10 who was the only one of the two tested then. This last patient, who continued to have low urinary steroid levels, had more than a twofold response again after stimulation with metapyrone, but this value never rose above 6.4.

In summary, there were two patients (# 2, # 10) who continued to have low 17-OHCS values after discontinuation of steroid administra-

TABLE 2

URINARY 17-HYDROXYCORTICOSTEROIDS* DURING PROLONGED VERY LOW DOSAGE STEROID THERAPY

PATIENT	CONTROL†		PARAMETHASONE (1 mg/da)†					NO STEROID†												REMARKS
			1-2 mos.		3-6 mos.		11-12 mos.	2-5 days			8-16 days			19-26 days			56-58 days			
	-	ACTH ‡	-	ACTH ‡	-	ACTH ‡	NO ACTH	-	SU-4885 **	-	-	SU-4885 **	-	-	SU-4885 **	-	-	SU-4885 **	-	
1 R.H.	1.7	6.5	1.3	4.7	0.9	4.5	1.4	5.3	3.0	10.3	3.5	6.7	18.0	-	-	-	-	-	-	4 mg triamcinolone for previous few months before study
2 E.H.	3.0	12.5	3.2 1.5	- 4.6	1.4	2.4	1.7	3.6	2.8	6.1	2.1	2.3	3.7	3.3	-	-	-	-	-	2 months before study 100 mg. triamcinolone acetonide intramuscularly
3 O.J.	1.8	11.6	1.3	7.4	0.6	3.7	0.8	4.5	9.3	15.7	3.0	5.9	11.5	-	-	-	-	-	-	3 mg triamcinolone daily for 1yr previous to study
4 E.B.	6.1	38.1	1.0	10.9	1.2	10.7	0.8	2.6	10.9	25.6	5.1	6.3	21.6	-	-	-	-	-	-	
5 F.M.	4.6	16.0	4.0	11.6	4.3	13.5	2.9	5.2	6.6	10.6	3.8	7.3	16.8	-	-	-	-	-	-	
6 S.B.	6.9	42.7	2.8	22.0	1.3	21.9	2.3	6.4	18.3	24.2	-	-	-	-	-	-	-	-	-	
7 M.J.	8.2	26.6	2.3	1.0	1.0 0.9	5.3 5.6	3.6	2.2	7.7	22.4	4.7	-	-	5.3	-	-	-	-	-	
8 A.C.	4.1	25.8	2.2	20.4	1.9 0.7 2.0	16.2 8.5 12.2	4.2	4.8	7.3	8.1	3.7	-	-	- 4.1	- 4.9	- 6.5	4.8	5.3	8.3	Last steroid determination performed at 40-42 days. 17-OHCS after 20 days of no steroid was 7.0
9 F.M.	8.6	-	2.0	-	1.4 6.2	- -	9.2	4.9	14.9	28.9	-	-	-	8.7	-	-	-	-	-	
10 J.T.	4.1	9.9	0.5	3.1	0.9	1.5	1.1	1.6	1.1	4.1	1.8	2.9	6.4	1.4	-	-	1.3	3.4	5.2	Emesis of some SU-4885 at 2-5 day interval
11 C.D.	8.6	17.2	2.6	9.0	1.4 2.0	- 8.8	2.6	7.9	10.9	22.5	-	-	-	-	-	-	-	-	-	
12 B.B.	-	-	-	-	-	-	3.8	5.0	-	-	5.2	-	-	-	-	-	-	-	-	
13 E.Ho.	4.0	20.2	0.8	6.2	-	-	2.6	5.9	11.9	25.8	5.6	8.8	23.0	-	-	-	-	-	-	

* mg per 24 hours.

† Urinary collections during control, paramethasone, and no steroid intervals are on successive 24-hour periods at the stated times during the study.

‡ 24-hour urine collection after 80 mg Acthar Gel intramuscularly.

** Metapyrone - 750 mg 4h during 2nd successive day of urine collections.

tion during the periods tested and two (# 2, # 8) who failed to have a twofold increase after SU-4885 stimulation. One patient (# 10) with a twofold response to SU-4885 still had relatively low values.

One patient (# 2) was given ACTH because he was doing poorly clinically. Unfortunately, a hypersensitivity skin reaction to ACTH developed and necessitated the administration of steroids. Therefore, he had to be dropped from further testing.

Discussion

Complications of long-term high-dosage steroid therapy are well known, particularly the overt clinical manifestations of toxicity. The effect of such therapy on the adrenal-pituitary axis also has received much attention. Fraser *et al*[2] first reported fatal acute postoperative shock from bilateral adrenal atrophy in a patient who had previously received prolonged therapy with relatively large doses of steroids. In another report by Bennett,[3] the adrenal glands from 190 patients who had received steroids were studied and revealed evidence of atrophy, narrowing and pallor of the adrenal cortex with associated loss of lipid. Other reports by Salassa *et al*[4] and Slaney and Brooke[5] also relate adrenal suppression in humans following long term high dosage steroid therapy. Similar results were obtained in rats by Ingle *et al.*[6] The role played by the pituitary gland in such instances is of interest because of the suggested possibility that adrenal atrophy may be due to pituitary suppression induced by exogenous steroids.[7]

Holub *et al*[8] demonstrated depletion and impairment of release of ACTH from the pituitary gland of rats that were treated with large doses of steroids. These authors[9] also studied ACTH concentration in the pituitary glands of five patients treated with large doses of steroids and found that one developed a significantly lower ACTH concentration in the pituitary gland: associated Crooke's changes also were present in the basophilic cells. In the same study, the pituitary response to SU-4885 was tested in four patients and resulted in no increase in urinary ketogenic steroids in one subject who had received the largest amount of steroids. A total of 350 gm of cortisone equivalent was administered to this individual during a period of ten years, thus indicating a probable relationship between the dosage and duration of steroid therapy to pituitary insufficiency. Similar evidence of such a relationship was suggested by others.[10] Danowski *et al*[11] reported that the daily administration of 300 mg of hydrocortisone for 30 days to 11 healthy subjects did not prevent the usual steroid response to intravenously injected metapyrone when tested five weeks after completion of therapy. In their opinion, small dosages of adrenal steroids, such as 20 mg of hydrocortisone daily, could be administered for years without clinical evidence of adrenal-pituitary unresponsiveness. It also was thought that unresponsiveness to intravenous metapyrone that might develop with such prolonged small dosage steroid therapy was only temporary and would not prove a hazard if surgical stress intervened. Janches *et al*[12] found an abnormal response to SU-4885 in all patients to whom the administration of corticosteroids produced intense Cushingoid manifestations, but no consistent relationship of the SU-4885 response to factors like dose of steroid, duration of therapy and the manner of discontinuation of the hormone could be ascertained.

The following conclusions are derived from the results of this study:

1. Many patients with rheumatoid arthritis who have mild to moderate disease activity may obtain a favorable clinical response during short or long term therapy with very small dosages of steroid. Paramethasone in doses of 1 mg daily combined with analgesics proved satisfactory in this study. Despite the lack of placebo-treated patients as controls, the individuals in this investigation were well known for long periods of time beforehand and served to a great extent as their own controls, thereby justifying this conclusion.

2. The worsening of joints and other symptoms that appeared when the steroid was abruptly discontinued near the end of the study indicates that withdrawal symptoms may pose a problem even after the administration of such small doses. This proved true in all patients, including the one who demonstrated no clinical improvement.

3. Clinical manifestations of toxicity on this steroid regimen are minimal.

4. Adrenal suppression occurs during low dosage steroid therapy, probably immediately after initiation of therapy. In this study it was demonstrated when first measured one month later. It persists during the extent of treatment.

5. During the time the patient may still be

(Continued on page 658)

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Correlation Between Electrocardiogram and Coronary Arteriography

CORONARY ARTERIOGRAPHY provides significant information regarding the nature and extent of the atherosclerosis in the coronary arteries. The hemodynamic consequences are seen in the ventriculogram in the patient. Through this method, it is possible to study the relationships of the clinical findings, symptomatology, electrocardiographic and chest x-ray changes by correlating them with the angiocardiographic findings. This report compares data obtained by the electrocardiogram with those demonstrated by selective coronary arteriography.

MATERIALS AND METHOD

Selective coronary arteriograms were performed in 365 patients either by Sones' technique using the brachial artery[1] or Judkins' technique through a percutaneous femoral artery puncture.[2] First, a ventriculogram was obtained with injection of 40 cc of contrast media into the left ventricle. Then, selective pictures of the left and right coronary arteries were obtained in different positions using a 16 mm cine with a speed ranging from 50 to 65 frames per second by selective injection of 4 cc to 10 cc of contrast media into the coronary arteries.

A study of the correlation between electrocardiograms and coronary arteriograms of 270 patients with and without demonstrable coronary artery disease. The results indicate that the electrocardiogram is not always a reliable test for the diagnosis of a coronary artery disease unless other signs and information substantiate the diagnosis.

The authors are from the Cardiac Catheterization Laboratory, Department of Internal Medicine, St. Louis University School of Medicine, where Dr. Aykent is Senior Instructor and Dr. Mudd, an Associate Professor of Medicine, is Director.

This work was performed during tenure of Fellowship under the Missouri and St. Louis Heart Associations and was supported in part by a grant from these Associations.

Prior to the test, each patient had a complete work-up, including a 12-lead electrocardiogram. During the procedure, the electrocardiogram and the aortic pressures were constantly monitored on a television screen and by an auditory "beeper."

The indications for selective coronary arteriograms in 270 patients fell into three groups (1) to demonstrate the extent of the coronary artery disease with definite clinical and laboratory evidence of myocardial infarction, (2) to evaluate the typical angina and (3) to study atypical angina with or without electrocardiographic abnormalities. In 95 patients with congenital or acquired heart disease, a retrograde left heart catheterization was performed for the hemodynamic assessment of the severity of the disease and, then, a selective coronary arteriogram was done.

From this group of 365 patients, 150 were selected who had coronary artery disease with no other associated cardiac lesions. They were divided into four groups according to the number of coronary arteries involved, i.e. with one, two, three or four major vessels affected by the disease. The electrocardiograms of these patients were reviewed separately and findings were correlated with angiographic changes in each of these four groups.

One hundred and twenty patients from this group with normal coronary arteriograms were used as a control. These patients had been referred for study because of a history of angina or abnormal electrocardiogram or both. After a complete work-up, including cardiac catheterization, none of these patients was found to have any cardiovascular lesions or any other reason to produce changes in the electrocardiogram.

RESULTS

There were 133 men and 17 women with coronary artery disease. The ages ranged from 32

TABLE 1

ECG FINDINGS IN 150 PATIENTS WITH POSITIVE CORONARY ARTERIOGRAMS

	One Major Coronary Vessel Involved		
9	WNL	29.0%	
7	ST-T changes	22.5%	
2	Inferior M. infarction	6.4%	35.4%
7	Anterior M. infarction	22.5%	
2	Anterior M. ischemia	6.4%	
3	LVH	9.6%	
1	Atrial fibrillation	3.2%	
31			
	Two Major Coronary Vessels Involved		
15	WNL	44.1%	
5	ST-T changes	14.7%	
5	Inferior M. infarction	14.7%	26.4%
2	Anterior M. infarction	5.8%	
2	Anterior and Inf. M.I.	5.8%	
1	CRBBB	2.9%	
1	CLBBB	2.9%	
2	LVH	5.8%	
1	1st degree A/V block	2.9%	
34			
	Three Major Coronary Vessels Involved		
17	WNL	34.6%	
10	ST-T changes	20.4%	
7	Inferior M. infarction	14.2%	34.6%
7	Anterior M. infarction	14.2%	
2	Anterior + Inf. M. infarction	4.0%	
1	Anterior M. ischemia	2.0%	
1	CRBBB	2.0%	
4	LVH	8.1%	
49			
	Four Major Coronary Vessels Involved		
8	WNL	22.2%	
7	ST-T changes	19.4%	
3	Inferior M. infarction	8.3%	38.8%
2	Inferior M. ischemia	5.5%	
5	Anterior M. infarction	13.8%	
1	Ant. + Inf. M. infarction	2.7%	
3	Anterior M. ischemia	8.3%	
2	CRBBB	5.5%	
1	CLBBB	2.7%	
2	ILBBB	5.5%	
2	LVH	5.5%	
36			

WNL: Within normal limit; CRBBB and CLBBB: Complete right and left bundle branch block; LVH: Left ventricular hypertrophy; ILBBB: Incomplete left bundle branch block.

to 74 years with a mean of 51.1 years in men and from 36 to 71 years with a mean of 55.5 years in women.

The electrocardiographic findings in 150 patients with coronary artery disease are shown in Table 1. The incidence of a normal electrocardiogram varied from 29% with one vessel disease to 22.2% with four vessel involvement. Non-specific ST-T changes in each group varied from 22.5% to 19.4%. On the other hand, definite electrocardiographic evidence of myocardial infarction was found in 35.4% of patients in the first group, 34.6% in the second group, 26.4% in the third group and 38.8% in the fourth group. The overall incidence was 34%. The finding of a right or left bundle branch block, left ventricular hypertrophy, atrial fibrillation or first degree atrioventricular block in each group also is shown in Table 1.

In half of the 120 patients with normal coronary arteriograms, the electrocardiograms were within normal limits (Table 2). Non-specific ST-T changes were present in 35% of the patients. Two patients, a 26-year-old woman and a 42-year-old man, had definite electrocardiographic evidence of antero-septal myocardial infarction with normal coronary arteriograms (Figs. 1 & 2). A 37-year-old woman with a normal coronary arteriogram showed ischemic T wave inversion in the leads V2, V3 and V4 with flat T waves in 1, AVL, V5 and V6. The incidence of right and left bundle branch block, Wolf-Parkinson-White syndrome and atrial fibrillation also is shown in Table 2.

TABLE 2

ECG FINDINGS IN 120 PATIENTS WITH NORMAL CORONARY ARTERIOGRAM

	Male	*Female*	*Total*	*%*
WNL	33	27	60	50.0
ST-T	18	24	42	35.0
CRBBB	1	2	3	2.6
IRBBB	2	1	3	2.6
CLBBB	4	2	6	5.0
WPW	1	—	1	0.8
ANT. M. ISCH.	—	1	1	0.8
ANT. M. INF.	1	1	2	1.6
ATRIAL FIB.	—	2	2	1.6
Total	60	60	120	100.0

WNL: Within normal limit; CRBBB-IRBBB: Complete and incomplete right bundle branch block; CLBBB: Complete left bundle branch block; WPW: Wolf-Parkinson-White syndrome; ANT. M. ISCH., ANT. M. INF: Anterior myocardial ischemia and infarction; ATRIAL FIB.: Atrial fibrillation.

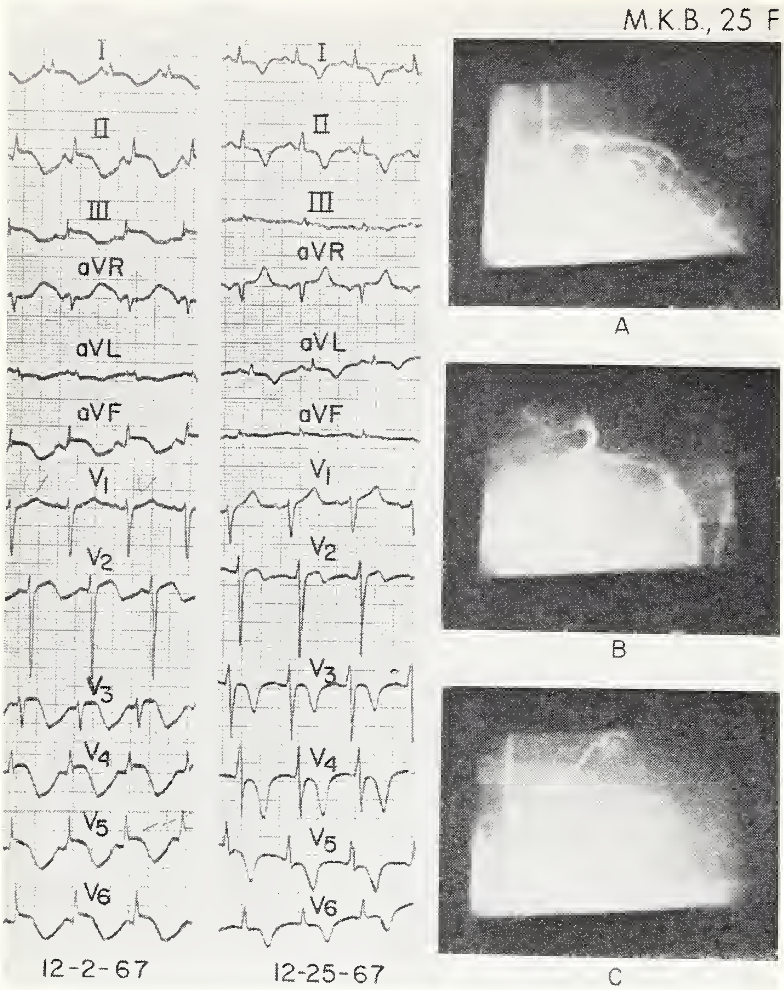

Fig. 1 *(Left)* **Electrocardiograms and frames of selective coronary arteriogram in a 25-year-old woman.** *(Right)* **A. Left coronary arteriograms in right anterior oblique position. B. Left anterior oblique position. C. Right coronary arteriogram.**

Discussion

Unless a coronary arteriogram is performed, the clinical diagnosis of coronary artery disease in a patient is based on history, electrocardiographic findings and enzyme changes. If the classical picture is absent, then frequently the information obtained by these tests is inadequate and the diagnosis is not certain. The result is either to convince a healthy person he has heart disease or to miss the real diagnosis.

The routine electrocardiograms in healthy and asymptomatic persons are not always within normal limits. Averill and Lamb[3] reviewed the electrocardiograms in 67,375 healthy, asymptomatic Air Force officers less than 40 years of age and found 2,527 abnormal electrocardiograms (3.76%). The two most common findings were nonspecific ST-T changes and ventricular extopic beats. Various types of atrioventricular blocks, arrhythmias, left and right bundle branch blocks and Wolf-Parkinson-White syndrome also were noted. Similarly, Manning[4] found 954 abnormal electrocardiograms (5.6%) in 17,000 healthy young Royal Canadian Air Force Aircrew applicants. The significance of these findings is not well understood, but atrioventricular blocks and complete left bundle branch blocks were always thought to be indicative of organic heart disease. In the present study of 120 patients with normal coronary arteriograms, only half of the electrocardiograms were within normal limits and 35% showed nonspecific ST-T changes (Table 2).

In 150 patients with various degrees of coronary artery disease shown by selective arteriograms, the incidence of normal electrocardiograms varied from 29% in one-vessel disease to 22.2% in diffuse four-vessel disease. There was, therefore, no close correlation with the degree of involvement in the coronary arteries. As noted with one-vessel involvement, 29.0%; two vessel, 34.6%; three-vessel, 44.1%; and four-vessel,

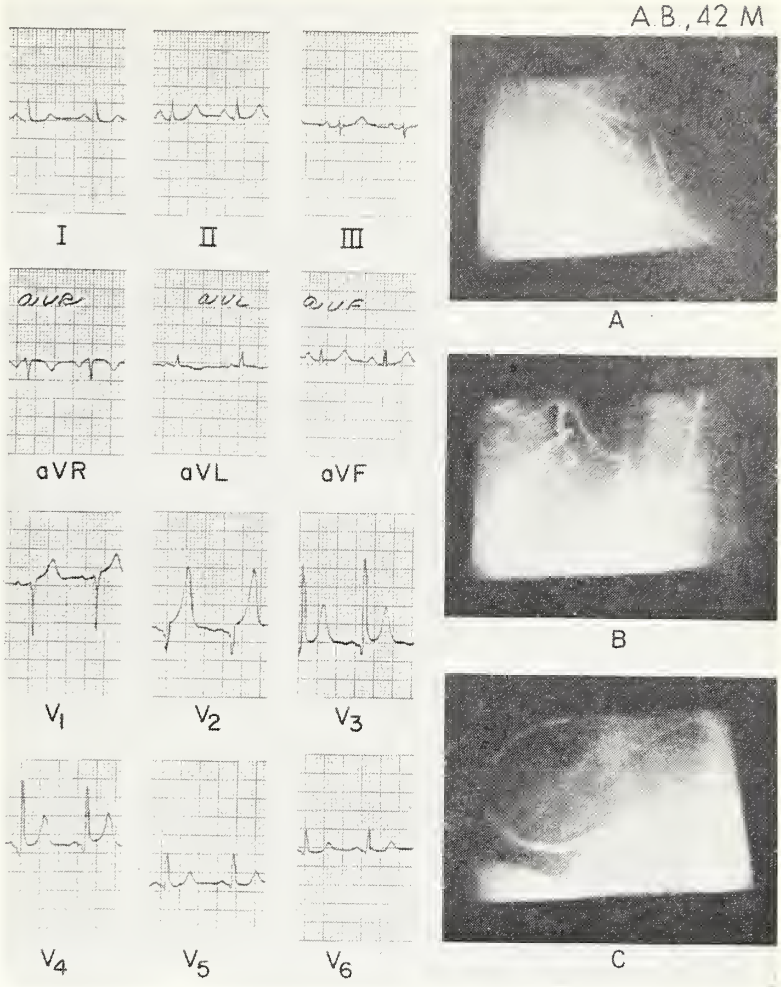

Fig. 2 *(Left)* **Electrocardiograms and frames of selective coronary arteriogram in 42-year-old man with a two-year history of chest pains.** *(Right)* **A. Left coronary arteriogram of right anterior oblique position. B. Left anterior oblique position. C. Right coronary arteriogram.**

22.2% of the electrocardiograms were within normal limits. Nonspecific ST-T changes varied from 22.5% to 19.4% in the same four groups.

These findings indicate that normal electrocardiograms and nonspecific ST-T changes can be present in normal patients as well as in patients with diffuse and severe coronary artery disease. There are no close relationships between these findings and the degree of coronary involvement.

Definite electrocardiographic evidence of myocardial infarction in patients with coronary artery disease varied from 35.4% with one-vessel disease to 38.4% in diffuse coronary artery disease. The severity of the disease did not significantly increase the incidence of positive electrocardiograms. On the other hand, among 120 patients, two with definite electrocardiographic evidence of anterior myocardial infarction and one with ischemia, were found to have normal coronary arteriograms. Complete work-ups in these patients were normal. Similar patients with normal coronary arteriograms were described in the literature.[5, 6] There is no satisfactory explanation for this discrepancy. Neill, Kassebaum and Judkins, however, believed that myocardial hypoxia was the cause for angina pectoris and electrocardiographic abnormalities in their 48-year-old woman patient with normal coronary arteriogram.

Complete left bundle branch block is a rare finding in healthy, asymptomatic persons[3] and usually is regarded as indicative of organic heart disease. In eight patients with complete and two with incomplete left bundle branch block, coronary arteriograms were performed. Six patients showed normal hemodynamics with no demonstrable evidence of coronary artery disease. Only two had coronary disease.

Similarly, in ten patients with complete and incomplete right bundle branch blocks, only four were shown to have coronary artery disease. Although the number of patients studied is small, it indicates that right, as well as left, bundle branch block can be present without demonstrable coronary artery disease in the main vessels or in their large branches.

Summary

The electrocardiographic findings in 150 patients with demonstrable coronary artery disease and 120 patients with normal coronary arteriograms were studied and the changes were correlated with selective coronary arteriographic findings.

The incidence of a normal electrocardiogram varied from 29.0% to 22.2% in patients with coronary artery disease and 50% in patients with no demonstrable coronary artery disease. Similarly, nonspecific ST-T changes varied from 22.5% to 19.4% in diseased patients and 35.0% in normal patients. Definite electrocardiographic evidence of myocardial infarction was present only in 34% of 150 patients with proven coronary artery disease by coronary arteriogram.

This study indicates that the electrocardiogram is not always a reliable test for the diagnosis of a coronary artery disease unless other signs and information exist to substantiate the diagnosis.

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Adrenal-Pituitary Relationships

(Continued from page 653)

taking steroid medication, adrenal suppression in most individuals may be temporarily overcome by ACTH administration. However, the lack of a complete response in all cases to ACTH stimulation merits cautious attention to this potential hazard in a stressful situation.

6. Following cessation of prolonged low dosage therapy, the pituitary gland, as tested by the administration of SU-4885, did not respond completely with a twofold increase in 17-OHCS in the urine in three patients when first studied two days after steroid was stopped. At the end of the study, there were still two of the latter patients with an incomplete response, while relatively low values were obtained in a third patient. In two of the three, there was evidence of adrenal suppression, leaving one with unresponsiveness not related to the adrenal. Pituitary inhibition, therefore, is a factor to be considered with this type therapy.

7. The adrenal glands may, in a few instances, remain depressed for days, weeks or, possibly, months after discontinuation of very low dosage steroid therapy.

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Gastric Lipoma Causing Massive Bleeding

Case Report

A 60-year-old woman experienced massive upper gastrointestinal hemorrhage from a lipoma of the stomach. Although preoperative evaluation led to a diagnosis of leiomyoma of the stomach, surgery revealed a gastric lipoma. This report emphasizes one of the most important complications of a gastric lipoma, namely, hemorrhage, and points out the clinical difficulty in distinguishing it from a leiomyoma of the stomach. The authors are from the Department of Surgery and Department of Medicine, Menorah Medical Center.

THE LITERATURE reveals the incidence of lipomas of the gastro-intestinal tract to be rare. Papers by Stout[1] and Pack[2] place the incidence of lipomas at only 1% to 3% of benign tumors of the stomach. While this tumor may be asymptomatic, it has been responsible for severe bleeding and may produce pain by pyloric obstruction. We recently had the opportunity to manage the following case of a gastric lipoma which had caused massive gastrointestinal hemorrhage. Aspects of previously described cases also are reviewed.

CASE REPORT

A 60-year-old woman was in good health until two months prior to admission when she experienced several episodes of hematemesis and melena. One week prior to her admission, she again experienced the same symptoms. She denied abdominal pain at any time. At the time of hospitalization, extreme pallor was evident, but the physical examination was unremarkable otherwise. The hemoglobin level was 3.2 gm/100 cc. Following adequate blood replacement, evaluation of the patient was carried out.

Radiography of the stomach revealed an extramucosal, intragastric mass considered most likely to be a leiomyoma of the stomach with a central area of ulceration (Fig. 1). Gastroscopy was useful in defining the appearance of this tumor (Fig. 2). The preoperative impression was a leiomyoma of the stomach with hemorrhage.

At the time of operation, a sleeve resection of the tumor located in the distal stomach was accomplished.

The gross surgical specimen showed the mass to be 5.0 cm by 4.5 cm and attached to the posterior

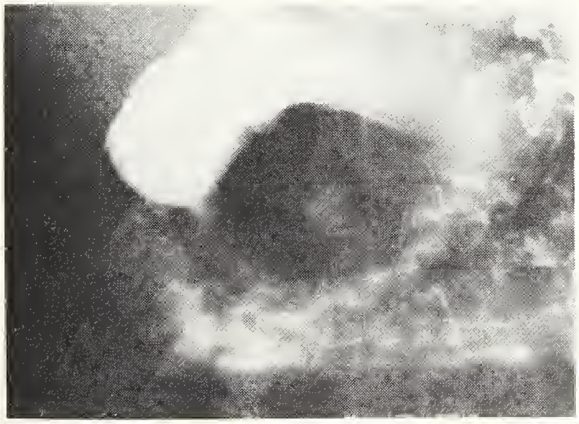

Fig. 1 Barium meal showed a 5.0 cm smooth, rounded defect with a 1 cm ulcer located on the posterior wall of the antrum.

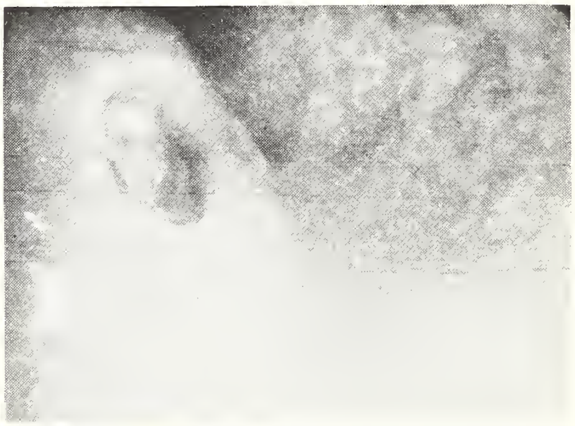

Fig. 2 Gastroscopy revealed a large ball-like protrusion of mucosa with an area of overlying central ulceration in the antrum.

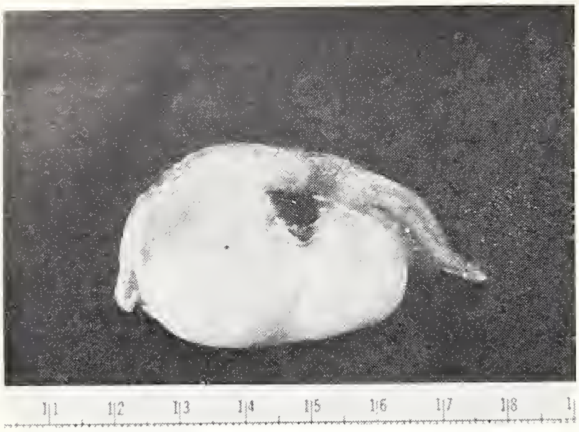

Fig. 3 Cut surface of the large lipoma showing an area of mucosal ulceration.

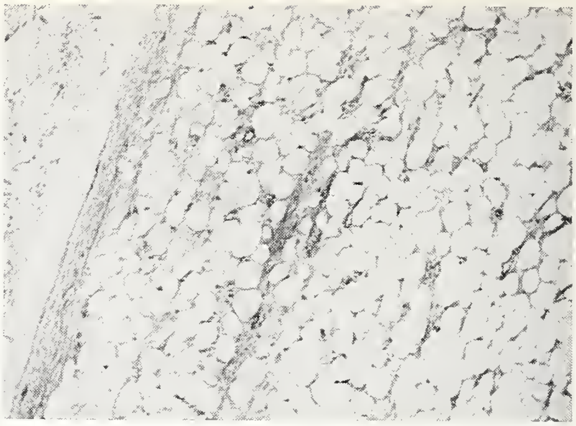

Fig. 4 Benign adipose tissue of the tumor, well encapsulated by fibrous strands. (H and E, ×35)

wall of the stomach. Two areas of ulceration upon the surface were noted. The cut surface of the tumor had a pale yellow, softened appearance and was greasy to touch (Fig. 3). The tumor was encased in a thin, fibrous capsule and tended to shell out in many areas.

Representative microscopic slides of the specimen showed the tumor to be composed predominantly of mature adipose tissue with a dense collagenous connective tissue capsule (Fig. 4). Chronic ulceration of the gastric mucosa was noted in two places. Also, there was recent thrombosis of a vein presenting on the surface of one of the ulcers. Malignant change was not observed. The pathological diagnosis was a benign lipoma of the stomach with ulceration.

The patient's postoperative course was uneventful.

Discussion

We have presented a case of a large gastric lipoma which caused severe upper gastrointestinal hemorrhage. It is important for the physician to be aware of this tumor since it often is accompanied by gastrointestinal bleeding. In 1963, Mayo stated that a lipoma of the stomach always must be considered in the differential diagnosis of upper gastrointestinal hemorrhage since this is the most common clinical picture that the symptomatic gastric lipomas present.[3] According to Ramos and his group in a review of the literature, hemorrhage occurred in 61% of cases reported.[4] The bleeding may be insidious or massive and life-threatening as in our case and in the case reported by Cassel and Guccioni in 1955.[5]

In none of the cases reported in the literature has there been evidence of malignant degeneration in the gastric lipoma or recurrence following surgical removal. We performed a limited resection for cure of this benign tumor as previously emphasized by Furste and his group in 1963.[6]

Even though our preoperative diagnosis was incorrect, we had some consolation in that Pack emphasizes that the tumor which is most difficult to distinguish clinically and radiographically from lipoma is the leiomyoma of the stomach.[2]

Summary

A 60-year-old woman experienced massive, painless gastrointestinal hemorrhage from a gastric lipoma. This uncommon benign tumor of the stomach is difficult to distinguish clinically from a leiomyoma.

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RICHARD T. O'KELL, M.D. *and*
JOSEPH R. ELLIOTT, Ph.D., *Kansas City*

Serum Chromatography as a Screening Procedure for Inborn Errors of Amino Acid Metabolism

The high incidence of mental retardation which accompanies some of the inborn errors of amino acid metabolism has led to widespread attempts to detect these disorders in newborn infants with the hope that the natural course of the disease might be altered by treatment. In recent years, phenylketonuria has received considerable publicity. Today in many states, testing for this disorder is mandatory. Although phenylketonuria is, perhaps, the best known inborn error of amino acid metabolism, it is by no means the only congenital metabolic disorder characterized by the accumulation of large amounts of one or more amino acids in the blood or the urine or both (Table 1).

Relatively simple and inexpensive chromatographic methods are available to screen both blood and urine for abnormal amounts of amino acids.[1–3] Since infants must have received sufficient food and have lived long enough to accumulate excessive quantities of the amino acids, testing of both blood and urine should ideally be done at about two weeks of age. This timing, however does not coincide with the usual practices of infant care in this country, where the first visit to a physician is made six to eight weeks after birth. As a compromise, it is best to test the blood of infants after two or three days of feeding, which is usually on the day of discharge from the newborn nursery. At this time, many disorders will have specific elevations of blood amino acids. The principal exceptions are argininosuccinic aciduria, cystathioninuria and, possibly, homocystinuria. In these disorders, the renal clearance of the substance is so high that testing the urine is preferable.

Method

One-dimensional paper chromatography by a method modified from Cawley, Goodwin and Dibbern[2] and Scriver, Davies and Cullen[3] was performed on serum from newborn infants at St. Luke's Hospital in Kansas City. Blood was collected in capillary tubes by heel stick from

TABLE 1

ABNORMAL PLASMA AND URINE AMINO ACIDS IN SOME OF THE INBORN ERRORS OF METABOLISM

Disorder	*Plasma*	*Urine*
Phenylketonuria	Phenylalanine	Phenylalanine, phenylpyruvate, o-hydroxyphenylacetic acid
Tyrosinosis	Tyrosine	Tyrosine, p-hydroxyphenylpyruvic acid
Maple Syrup Urine Disease	Valine, leucine, isoleucine	Valine, leucine, isoleucine
Hypervalinemia	Valine	Valine
Hyperprolinemia	Proline, glycine, hydroxyproline	Proline, glycine, hydroxyproline
Hydroxyprolinemia	Hydroxyproline	Hydroxyproline
Hyperglycinemia	Glycine	Glycine
Hyperlysinemia	Lysine	Lysine
Homocystinuria	Methionine, homocystine	Homocystine
Histidinemia	Histidine, alanine	Histidine, alanine
Citrullinuria	Citrulline	Citrulline
Argininosuccinic aciduria		Argininosuccinic acid
Cystathioninuria		Cystathionine

The incidence of mental retardation which accompanies some of the inborn errors of amino acid metabolism is high and has led to widespread attempts to detect these disorders in the newborn. This paper presents details of a simple and inexpensive method for identifying infants with aminoacidopathies. Dr. O'Kell is Associate Pathologist and Dr. Elliott is Clinical Chemist at St. Luke's Hospital.

all newborn infants on the day of, or sometimes the day before, discharge from the newborn nursery. After centrifugation, the tubes were scored and broken at the junction of the cell mass and the serum. Ten microliter samples of serum were applied to Whatman No. 3 MM chromatography paper at points one inch apart on a line one inch from the bottom edge of nine-inch paper (Fig. 1). Eleven-inch wide sheets of paper conveniently allowed the application of nine specimens and a standard. Three equidistant holes were punched on each side of the paper which as then rolled into a cylinder and approximated by tying string through the holes. Anomalous migration of the sample was prevented by taking care not to overlap the paper.

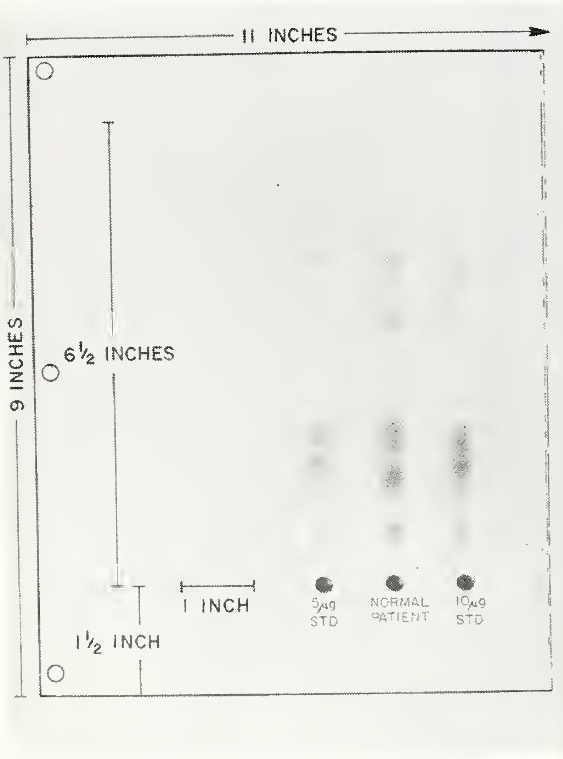

Fig. 1 Composite photograph showing the dimensions of the chromatographic paper and three stained patterns.

Ascending chromatography was then performed in widemouthed gallon jars for six and one-half inches at 40 C temperature, a process which required approximately four hours. The solvent was 120 ml of n-butanol, 30 ml of glacial acetic acid and 50 ml of distilled water. Extraction of the serum was not necessary since this solvent precipitated the protein at the point of application. Following migration, the sheets were dried at 40 C for 20 minutes and then sprayed with 0.5 gm of ninhydrin and 1 ml of trimethylpyridine dissolved in 100 ml of acetone. The sheets were again dried at 40 C for 20 minutes, after which they were interpreted.

Serum standards containing both 5 mg/100 ml and 10 mg/100 ml of phenylalanine, as well as known quantities of other selected amino acids, were used (Table 2). Comparison of the unknown sera with the standards served to approximate the relative mobility during migration and the quantity of the individual amino acids.

TABLE 2

AMINO ACID COMPARISON STANDARD PREPARED IN SERUM

Amino Acid	mg/100 ml of serum
Phenylalanine	10.0 and 5.0
Lysine	4.0
Arginine	3.4
Glutamic Acid	4.4
Proline	3.0
Alanine	7.2
Leucine	4.0
Tyrosine	2.0
Cystine	11.0

Parallel testing of 1,151 infants was done using one-dimensional paper chromatography and the Guthrie bacterial inhibition test for phenylketonuria.[4]

Results

The results of a chromatographic run could be scanned quickly. Although one-dimensional paper chromatography does not completely separate all amino acids, it is satisfactory for screening when adequate standards and known volumes of serum are used.

(Continued on page 664)

THEODORE J. DUBUQUE, JR., M.D., ALAN F. DENK, M.D.
and **CHARLES R. DOYLE, M.D.,** ***St. Louis***

Superficial Thrombophlebitis

SUPERFICIAL THROMBOPHLEBITIS, although usually innocuous, may on occasion require urgent operation. Most patients will recover completely without specific therapy, but those with involvement near the saphenofemoral junction are in danger of progression of the process to deep thrombophlebitis with all its sequelae.[1, 2] This paper describes our experience with superficial thrombophlebitis and outlines a course of management.

MATERIAL AND METHODS

In the ten-year period from January, 1957 through December, 1966, we treated 1,683 patients for venous disease of the lower extremities. The majority of these patients had uncomplicated varicose veins. Fifty-nine of the patients, however, had superficial thrombophlebitis as their primary ailment. The diagnosis was based on the presence of a characteristic linear area of inflammation along the long or short saphenous vein or one of its tributaries. Thirty-eight of these patients had superficial thrombophlebitis of the long or short saphenous vein or one of its tributaries at some distance from the saphenofemoral or short saphenopopliteal junction. These patients were managed satisfactorily on an ambulatory outpatient basis. Compression bandages were applied and the patients were encouraged to carry on their usual activities. Anticoagulants were not used. Nonsteroid anti-inflammatory agents, such as phenylbutazone, were often used and were felt to be of benefit.

In 18 patients with involvement of the long saphenous vein in the proximal thigh and progression toward the saphenofemoral junction, urgent operation was performed to prevent progression to the deep system. In 15 of these patients (three of whom were pregnant), a high ligation and division of the saphenous vein was done using local anesthesia. In the remaining three patients who had symptomatic varicosities, ligation and stripping were done without complication. High ligation of the saphenous vein was done as the initial step in the operation to prevent dislodgement of the thrombus into the deep system. Passage of an intraluminal stripper through an area of acute thrombophlebitis is no more difficult than in a routine case and much easier than in a patient with organizing phlebitis.

Three other patients already had thrombus extending into the deep system at the time of high ligation. In two of these, the thrombus was at the saphenofemoral junction and in one at the junction of the short saphenous and popliteal veins. In each instance, a thrombectomy was done through the stump of the saphenous vein with a good result.

DISCUSSION

Our plan of therapy for superficial thrombophlebitis may be summarized as follows: When the process does not appear to extend near the junction of the short saphenous and popliteal veins or to the saphenofemoral junction, treatment as an outpatient is recommended. The patient is allowed to continue his usual activities. Use of a thin elastic bandage helps to give symptomatic relief. Anticoagulants are not used. The prognosis is good, and return to normal can be expected in a few weeks.

When the phlebitic process extends towards the saphenofemoral or short saphenopopliteal junction, the involved vessel must be interrupted to prevent progression to the deep system. This high ligation can be done readily under

Superficial thrombophlebitis generally is a benign, self-limiting process that requires only symptomatic treatment. When there is progression to the deep system, however, urgent operative intervention is required to prevent development of deep thrombophlebitis and its sequelae. The authors describe their experience with superficial thrombophlebitis during a ten-year period and outline a course of management. Drs. Dubuque, Denk and Doyle are from the Department of Surgery, St. Louis University School of Medicine.

local anesthesia on an outpatient basis. The patient is then managed as above. If the patient's condition is satisfactory and stripping is indicated because of varicosities, the stripping may be done during the acute phase. In fact, it is more easily done during this phase than later. High ligation must be done as the initial step of the stripping operation.

With progression to deep thrombophlebitis, a thrombectomy of the femoral or popliteal vein should be done in conjunction with a high ligation of the involved saphenous vein to prevent development of postphlebitic sequelae. This serious complication of an otherwise benign entity emphasizes the prophylactic value of early high ligation when there is extension toward the deep veins.

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Serum Chromatography

(Continued from page 662)

Approximately 10% of the infants had a slight elevation of the serum tyrosine. This corresponds to previously reported experience[2] and is a transient phenomenon. Four of the sera had phenylalanine spots similar to those of the 5 mg/100 ml standard. Chromatography of subsequent specimens from these four patients was normal. No other abnormal amino acid elevations were identified among the infants screened. There was complete agreement between the amino acid chromatography and the Guthrie test.

Discussion

Although uncommon or even rare, the aminoacidopathies are a significant problem because of the often associated retardation of physical and mental development. Home care of these individuals usually is not plausible, and lifelong institutional care is expensive. In fact, it has been estimated recently that the cost of lifetime care for a phenylketonuric patient is at least $200,000.[5] The cost of identification and treatment is not nearly so great. Diet therapy, although not a simple task, is now available for phenylketonuria and other inborn errors of amino acid metabolism.[6] Treatment, of course, is predicated upon early detection.

One-dimensional paper chromatography of serum has proven to be a simple and reliable method of screening newborn infants for inborn errors of amino acid metabolism, extending far beyond the isolated parameter of the Guthrie test. It is an inexpensive procedure and is simple enough to be performed daily in most hospital or large clinic laboratories. It must be emphasized, however, that this and similar procedures are screening tests and that positive results require definitive confirmation.

Summary

We have presented our experience with one-dimensional paper chromatography of serum amino acids as a screening procedure for inborn errors of amino acid metabolism. It is a simple and inexpensive method for identifying infants with aminoacidopathies.

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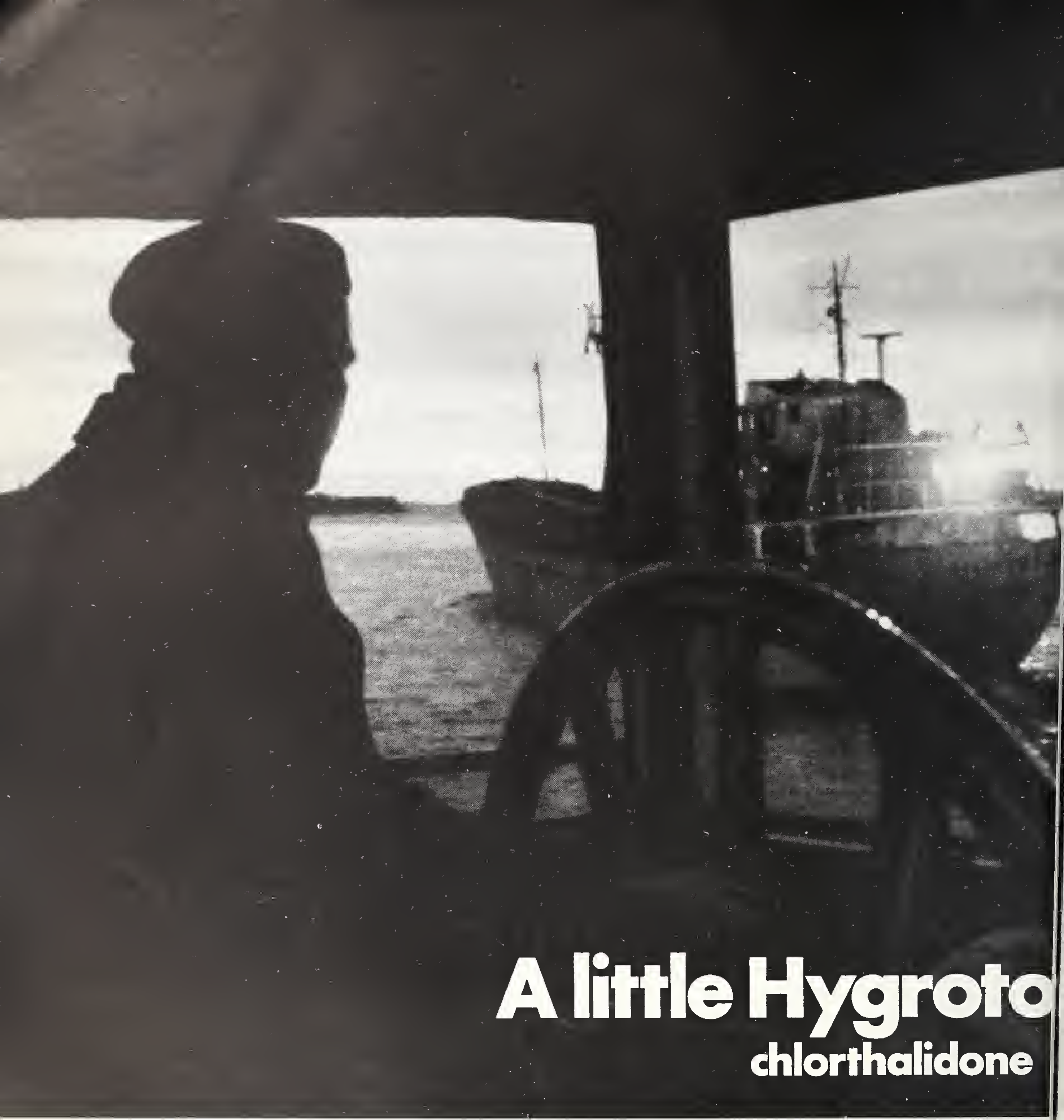
Continuing Education Coming Events

Sept. 8	**Psychiatric Problems of the Pediatrician's Practice** (Ten consecutive Tuesdays, 8 PM, no fee) St. Louis University Department of Neurology and Psychiatry and Metropolitan College 3637 West Pine, St. Louis 63108
Sept. 8-11	**Cerebral Space Occupying Processes and Differential Diagnosis—"A Radiological-Pathological Correlation"** Continuing Education, M. U. School of Medicine Medical Center Auditorium, Columbia 65201
Sept. 16	**General Psychiatric Problems in Medical Practice** (Eight consecutive Tuesdays, 8 PM, no fee) St. Louis University Department of Neurology and Psychiatry and Metropolitan College 3637 West Pine, St. Louis 63108
Oct. 1-2	**Seminar—Allergy and Immunology** American College of Allergists, Danciger Institute and the Children's Mercy Hospital Menorah Medical Center, Kansas City 64110 (AAGP credit)
Oct. 21-24	**Emergency Care and Transportation of the Sick and Injured (Advanced Practical Course)** American Academy of Orthopaedic Surgeons Committee on Injuries, Washington University and St. Louis University Schools of Medicine, American Red Cross, St. Louis Fire Department St. Louis Medical Society, 3839 Lindell, St. Louis 63108
Oct. 10-11	**M.D. Day** Continuing Education, M.U. School of Medicine Medical Center Auditorium, Columbia
Nov. 11	**Lecture-Discussion Seminar—"Sexual and Marital Problems"** (Six consecutive Tuesdays, 8 PM, no fee) St. Louis U. Department of Neurology and Psychiatry and Metropolitan College 3637 West Pine, St. Louis 63108
Nov. 19-21	**Seminar—Recent Advances in Pediatrics** Danciger Institute for the Health Sciences Menorah Medical Center, Kansas City 64110 (AAGP credit)

America's Oldest Medical Essay Competition

The Trustees of America's oldest medical essay competition, the Caleb Fiske Prize Essay of the Rhode Island Medical Society, announce as the subject for this year's dissertation "Medical Education in the Years Ahead." The essay must be typewritten, double spaced and should not exceed 10,000 words. A cash prize of $500 is offered. Essays must be submitted by December 15, 1969.

For complete information regarding the regulations, write to the Secretary, Caleb Fiske Fund, Rhode Island Medical Society, 106 Francis St., Providence, R. I. 02903.


A little Hygroto
chlorthalidone

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President's Message

The American Medical Association's Political Action Committee held a Public Affairs Workshop in Washington, D. C., on May 17-18. It was my privilege to attend with the following Missourians:

Dr. Kenneth Holweg, Kansas City, Chairman of MMPAC; Dr. Hubert Ritter, St. Louis, President of St. Louis Medical Society and Treasurer of MMPAC; Mrs. Ritter; Dr. John Griffith, Kansas City, member MMPAC Board; Dr. Jack Bass, Salem, member MMPAC Board; Dr. Mark Eagleton, St. Louis; and Mr. Royal Cooper, MSMA Staff.

Dr. Dwight Wilbur, President of AMA, stressed that involvement in public affairs is as necessary as medical science. We can no longer remain indifferent or aloof from politics. The price to pay for failing to act is increased bureaucracy that will damage the physician and the public.

Dr. Wilbur told the 600 attending the meeting that the physician indifferent to government is the physician indifferent to a force that can shackle his profession.

Mr. Dwight Scott, director of Government Relations for the National Biscuit Company, said, "The intelligent exercise of responsibility demands a proper public affairs program and direct participation in public affairs." He urged the expansion of AMPAC and similar organizations among business and professional groups.

Doyle C. McCraw, M.D.

Our colleagues who direct AMPAC and MMPAC are becoming increasingly expert in the field of politics. They need our confidence and our assistance.

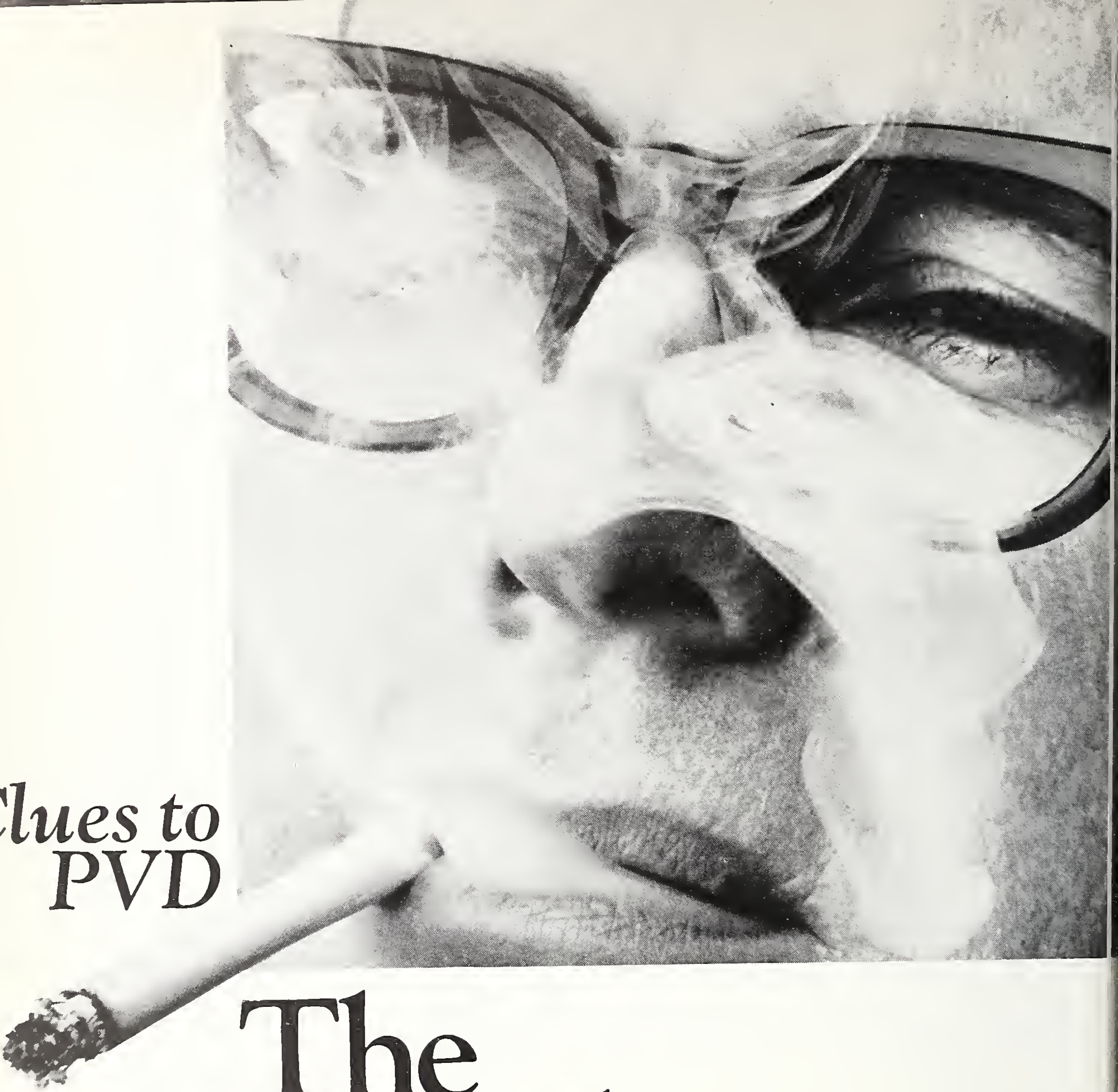
We are free citizens in a free country. Whatever reduces our individual freedom diminishes total freedom. We must not stand idly by when these freedoms are under attack. We are obligated to defend our beliefs in the ways permitted up by our form of government. This is a practical way to support our beliefs.

About 25% of MSMA members are members of AMPAC this year. Many of our county societies billed AMPAC along with state and AMA dues. Joint billing is being done in most states. It is twice as effective as single billing, and I hope all of our county societies will adopt this method of billing in the future.

A long step in this direction came recently with the decision of the St. Louis Medical Society to join in the joint billing program. I believe this is one of the most important events in the short history of MMPAC and will make the program far stronger in the future.

MMPAC has become very effective in Missouri. Of some 30 candidates supported last year, 25 were elected. Political leaders take cognizance of these results.

If you have not paid your MMPAC and AMPAC dues this year, your check for $25.00 can be sent to Treasurer, MMPAC, P.O. Box 8251, St. Louis, Mo. 63156. A sustaining membership is just $99.00. A check for your wife's membership may also be included.



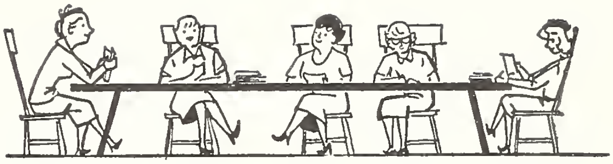
Clues to PVD

The heavy smoker with vasospasm

He may be comparatively young or approaching middle age. Typically, he is a heavy cigarette smoker—a pack or more a day for a number of years. Whether smoking is a causative or an important exacerbating factor in peripheral vascular disease is still under discussion. But the vasoconstrictive effects of nicotine are firmly supported by a substantial body of laboratory and clinical evidence, and the close association is now generally accepted.

Thus, a history of heavy smoking coupled with vasospasm may serve as warning signals to the physician. When a diagnosis is established, therapeutic measures are directed toward increasing the local circulation, and appropriate management of the patient's general medical needs should be instituted. These include the important safeguards of keeping warm and refraining from smoking.

Woman's Auxiliary



We will deviate from the usual message concerning Auxiliary projects. I would like to pass on to you excerpts from a speech given by Mrs. G. Prentiss Lee, First Vice-President, Woman's Auxiliary to the American Medical Association. It is entitled "Follow the Gleam."

"Tennyson urged us to set for ourselves ennobling personal standards and to 'Follow the Gleam.' Our ideals are like the stars that guide the Mariner; they give direction to our lives. It is important that we identify them that we may set our course toward them.

Mrs. James A. Reid, President

"In His wisdom, God has given each of us an opportunity to choose his stars, to decide the kind of person he or she would like to be. Out of fidelity in following the stars one chooses, a person earns both self-respect and stature.

"In this living, growing, ever expanding organization for doctors' wives who are helping their husbands to build a better world, perhaps we, too, should outline our ideals.

"For 'What we are is God's gift to us; what we do is our gift to the world.'

"The first ideal is *friendship*. Emerson said, 'The only way to have a friend is to be one. A stranger is a friend who does not know us.'

"The second ideal is the *power of enthusiasm*. Bulwer-Lytton said, 'Nothing is so contagious as enthusiasm; it moves stones, it charms brutes. Enthusiasm is the genius of sincerity, and trust accomplishes no victories without it.'

"Enthusiasm is indeed the implementing force in the Auxiliary. Our spirit is radiated onward and outward in myriads of unselfish acts of service to others.

"Enthusiasm and smiles are inseparable companions. Both are contagious and can infect an entire county auxiliary and a community. Let's cultivate our enthusiasm with friendly smiles.

"The third ideal is *charm* . . . that elusive quality men and women have tried to analyze for centuries. True charm is an ideal which grows as it is cultivated. It is courtesy, kindness, quality, helpfulness, poise and understanding. Charm is the indispensable ingredient in the lives and personalities of all who have learned to win friends and influence people.

"A fourth ideal is the discovery of the *joy of being helpful to others, the joy of service* . . . the rewards of holding out a helping hand to others who may need a lift along the way; for those who are willing to walk the second mile with a friend or stranger.

"None goes his way alone;
all that we put into the lives of others
comes back into our own."

EDITORIALS

THE PHYSICIAN AND ENVIRONMENTAL HEALTH

(Even though the results of air and water pollution can be disastrous and now threaten the actual survival of man on earth, the seriousness of these problems today is realized by too few citizens. The need for the medical profession to become involved and play a leading role in the search for solutions to our environmental problems is clear. Dr. Arthur W. Neilson, Chairman, discusses the causes and results of pollution with dramatic clarity in this preamble to the MSMA Environmental Health Committee's first report to the Council on June 14-15, 1969.—THE EDITOR.)

Before the Missouri State Medical Association's Environmental Health Committee can make its first report to its Council, it first must at least partially inform the Council of the serious nature of the problems confronting the Committee. The Committee is only one year old. It has taken two years to understand the need for it and to present the problem to the Missouri State Medical Association's House of Delegates, obtain approval, hold meetings, think through possible solutions and devise a beginning to medicine's involvement in plans to educate our Missouri citizens concerning the factors that are rapidly, and with increasing tempo, tearing at the world in which we and our children and our children's children shall have to live in the decades just ahead.

Shocking as it may seem, our country is confronted with the basic fact that pollution in one of its many forms is winning its war against our society. The Science of Ecology involves the integration of man's total environmental and power needs—it seeks to understand how to best provide optimum conditions for achievement and fulfillment of the best possible environment for man. In the next decade or two, it may become the most necessary of all sciences—a household word to masses of people who today are totally ignorant of both the word and its meaning.

Water pollution, air pollution, garbage refuse and waste disposal problems are discussed daily in our news media. For many years the recuperative powers provided by nature have been adequate to accept and treat the many contaminating effluents discharged into our bodies of water, our air and our land masses. It becomes plainer daily, however, that nature—our earth—can no longer accommodate those wastes for several reasons:

1. The available supply of air, water and land has remained relatively constant, while our population has exploded.
2. Our population is becoming more concentrated in a relatively smaller segment of our geography. Seventy per cent of the population lives on 10% of the land. By 1980 more than 90% of the population will reside in vast megalopolitan societies that will become chronic disaster areas unless we can devise solutions for pollution.
3. The amount of waste generated per person is increasing daily. As society becomes more affluent, it has more material goods of which to dispose—in both weight and volume. These pyramiding wastes are increasing at a rate upwards of 20% per year on a volume basis.
4. Technology has advanced markedly. Nearly all of these advances result in increased discharges of heat, radioactive energy, chemicals, dyes and poisons of a hundred thousand sorts into our waters, our air and our land. These discharges upset ecological balances which eventually will make it impossible for man to survive.
5. As we find one pollution tragedy after another heaped upon our environment because of the above factors, we panic in emergency solutions on a crash basis, most of which produce unforeseen results generally worsening the over-all problem, which makes another crash project immediately necessary.

Many of the end results of pollution are not only economically disastrous but produce disease, change the chemistry of our bodies and, perhaps, irrevocably may change our germ plasm, poison our food and water, permanently damage our food producing potential, as we presently know it, and make it difficult for men to survive on the face of the earth.

As Physicians, do we simply stand idly by? Or, do we continue to do as we have done for centuries—aid and assist our fellow man to a fuller life as free from pain and suffering as we with our limited knowledge can devise? Do we foresee the problem, accept the challenge and assume a leadership role? If the answer is yes, where do we attack the problem—how involved do we become?

It's clear that mankind has come to the threshold of an entirely new era in its history. Henceforth, the health and well being of the species will depend upon the behavior restraint and the biological wisdom of each generation with respect to cumulative pollution of this biosphere. This portends new and heavy responsibilities for scholars and practitioners in the many fields of human biology and health care. It's not too early for the medical profession to become concerned and involved. In fact, this profession must play a leading role.

ARTHUR W. NEILSON, M.D.
Chairman, MSMA Committee on Environmental Health

WHEN MUCH IS FAR TOO MUCH!

With the changing picture of medical litigation during the past ten years, the physician's responsibility has been judged to increase in explaining to his patients the possible actions of drugs he gives to them. He can be held negligent if a serious drug reaction occurs and he had failed to alert his patient of it. The term "iatrogenic" was coined for such a situation and this word is being used increasingly in all its connotations.

Thus, the physician is placed in a very difficult situation. To what extent should he dwell upon these possible effects of medication? The limitations of time make it impractical to deliver a pharmacology lecture with each prescription, even if every patient were capable of understanding what was said. Nevertheless, the liability is there and today's courts are more than ready to assess it.

My interest in this problem, and my conviction that some quantitation of it would be worthwhile, led me to design a very simple study for my own information. Therefore, I chose a drug which seldom causes subjective side effects but, when they occur there are almost always two, nausea and headache. This drug was orally administered griseofulvin. For four weeks, I gave the usual dose of griseofulvin to two groups of 25 adult patients. Some of these patients had mycoses, some did not. The patients were alternately assigned to group one or group two in the order in which they came to see me. No attempt was made to separate them according to age or sex.

I gave the first group only the customary amount of explanation, blending the griseofulvin into their treatment picture and saying nothing of any possible reaction to it. To the second group, I gave the same advice and, in addition, dwelt at some length in explaining that this was medication quite capable of causing headache and nausea. I also emphasized that I wanted them to continue with their griseofulvin if they could possibly do so.

The results were very revealing. Of the first group, none complained of headache or nausea at the end of one month even after direct questioning. This is not surprising, because the incidence of those symptoms with this drug is not great.

Quite different was the second group. Of that 25 patients, direct questioning at the end of four weeks established that five had nausea and seven had headache which they attributed to the drug. Two patients had both. Of those who developed symptoms, five felt badly enough to discontinue the drug before the end of the trial period.

I quite realize my little experiment could be torn to pieces by a biostatistician. But the fact that it was all conducted by a single individual with the same carefully controlled remarks to each patient of each series makes it difficult to disregard the study completely. I have seen far fancier projects which made less sense but which spent large research grants.

But the problem remains. How much are **YOU** going to tell that next patient about his medicine? After this experience, my opinion is that it depends upon how much time you want to spend writing new prescriptions. If you say too much, you are probably headed for trouble all over again. If you don't, the jail door yawns.

There are some times, friend, when you can't win, and this is one of them.

WILFRED E. WOOLDRIDGE, M.D.
Springfield

A TIME FOR QUESTIONS

With man's touchdown on the surface of the moon, it seems reasonable that many humans once again will reconsider what their place might be under that moon. Age old questions keep blossoming in the quiet hours of our lives. What is the meaning of life? Where do I fit? Where am I going? With some two thirds of the world's population hungry today and the remainder in the midst of a very real social revolution, such questions become agonizingly relevant to the individual. Even among the most stoic and secure of persons, there is discerned a certain tiredness, a certain anxiety, a certain uncertainty. The materially fortunate can laugh it off, work it off, drink it off, golf it off, swear it off, but it always manages to return. Maybe it will help to ask some other questions which to me seem more pertinent to our unsettled times. You, of course, can provide the answers.

Which shall it be, man challenge or moon challenge, both in the hopper?

From one frustration to the next lies worry, tenseness and tears.

From one blessing to the next lies peace, relaxation and love.

What evil influence keeps so many people from the latter?

The eye that has never shed a tear is blind. If you have never tasted defeat and disappointment, how can you fully relish victory and joy?

We are born dependent and we die dependent. In between, we like to delude ourselves into believing that we are independent. Why?

Thinking about your daily problems may or may not be productive of solutions. Worrying about them will always be productive . . . of more problems. Why worry?

Sorrow and personal despair are burdens we humans must bear from time to time. It is amazing that a few seem to bear them so lightly and courageously while others sink under the load. Is there really something to this bit about a foundation of rock or a foundation of sand?

The mother of a 12-year-old school boy recently complained about some theme topics from which her son was assigned to choose. They included such gems as Civil Defense and the Bomb, the Unwed Mother, the Cybernetic Age, Horoscopes and Astrology, Juvenile Delinquents, Homosexuality, the S.D.S. and Campus Turmoil, Moral and Legal Aspects of Abortion, and Pornography. After digesting this list of topics, the 12-year-old seventh grader, with a mind of his own, decided on his own topic. . . . Raccoons! Don't you think this a bit humorous?

Good luck with your answers.

ROBERT M. MATHEWS
Member, Editorial Board
Greater Kansas City Medical Bulletin

COMMENT . . .

Our Readers Write

To the Editor:

It has been called to our attention that some confusion exists among Missouri physicians regarding the current nomenclature for organizations of medical technologists in Missouri.

Our organization, the Missouri Society of Medical Technologists, is a constituent member by charter of the national professional society, the American Society of Medical Technologists. Active membership in both organizations requires a baccalaureate degree. Most members are graduates of AMA-approved schools of medical technology and are registered through the Board of Registry of ASCP (American Society of Clinical Pathologists) and ASMT (American Society of Medical Technologists).

AMT (American Medical Technologists) recently has organized a state society and has named it "Missouri State Society of American Medical Technologists" or MSSMT. This leads to the confusion.

In addition, RMT (Registered Medical Technologists) and ISCLT (International Society of Clinical Laboratory Technologists) have their national organization headquarters in St. Louis.

Neither of the above-named organizations is sponsored by or affiliated with any organized medical group. We submit the following facts:

Some facts that recently appeared in a report to Congress by former Secretary Wilbur J. Cohen of the Department of Health, Education and Welfare are as follows:

"ASMT represents and maintains a registry for Technologists who are baccalaureate graduates of 783 schools of medical technology approved by the Council on Medical Education of the AMA. AMA accreditation is the only accreditation program for schools of medical technology recognized by the National Commission on Accreditation. As of September, 1968, 56,800 technologists in various specialty categories were registered.

"AMT and ISCLT also operate accrediting programs for schools of medical technology. At present, AMT accredits 11 schools and ISCLT accredits four. Most of these schools are proprietary. Neither organization is sponsored by or affiliated with any organized medical group not recognized by the National Commission on Accrediting. These organizations grant registration as a technologist to high school graduates with specified experience and/or commercial school or other training and satisfactory performance in an examination."

We will appreciate it very much if you will publish this clarification for Missouri physicians who may be confused about professional organizations for medical laboratory personnel.

Sincerely,

MARY E. HECKMAN, MT(ASCP), Ph.D.
President
Missouri Society of Medical Technologists
Coordinator of the School of Medical Technology
Research Hospital and Medical Center
Kansas City, Mo.

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New Members

Glenn D. Blaisdell, M.D., 2133 Meadow Dr., Springfield, has become a member of Greene County Medical Society. Dr. Blaisdell is a native of Rock Island, Tex., received his preliminary education at Baylor University and his M.D. degree at Baylor University in 1956. He is in general practice.

Jack I. Kenzler, M.D., 819 Locust, St. Louis, has become a member of St. Louis County Medical Society. Dr. Kenzler is a native of Otterbein, Ind., received his preliminary education at Purdue University and his M.D. degree at Indiana University in 1953. He specializes in occupational medicine.

Richard Y. Kimura, M.D., 6651 Chippewa, St. Louis, has become a member of St. Louis County Medical Society. Dr. Kimura is a native of Honolulu, Hawaii, received his preliminary education at the University of Colorado and his M.D. degree at Tulane University in 1963. He specializes in dermatology.

Sam E. Maben, M.D., 940 E. 63rd St., Kansas City, has become a member of Jackson County Medical Society. Dr. Maben is a native of Poplar Bluff, received his preliminary education at the University of Arkansas and his M.D. degree at the University of Arkansas in 1965. He specializes in internal medicine.

Leonard N. Newmark, M.D., 4910 Forest Park Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Newmark is a native of St. Louis, received his preliminary education at Western Military Academy and his M.D. degree at Washington University in 1963. He specializes in internal medicine.

Francisco J. Obando, M.D., 5262 Lemay Ferry Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Obando is a native of Managua, Nicaragua, C.A., received his preliminary education at La Salle Brothers and his M.D. degree at the University of Mexico in 1960. He is in general practice.

Harry M. Ricketts, M.D., 8631 Delmar Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Ricketts is a native of Dallas, Tex., received his preliminary education at the University of Texas and his M.D. degree at Tulane Medical School. He specializes in psychiatry.

Richard N. Romero, M.D., 113 Mississippi Ave., Crystal City, has become a member of Jefferson County Medical Society. Dr. Romero is a native of New York, N. Y., received his preliminary education at the National University of Mexico, and his M.D. degree at the National University of Mexico in 1954. He specializes in internal medicine.

Ramon A. Shane, M.D., Professional Bldg., Springfield, has become a member of Greene County Medical Society. Dr. Shane is a native of Henryetta, Okla., received his preliminary education at Baylor University and his M.D. degree at Baylor University in 1956. He specializes in general surgery.

D. Dax Taylor, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Taylor is a native of Chicago, Ill., received his preliminary education at Amherst College and his M.D. degrees at the University of Missouri in 1963. He specializes in pathology.

Milagros Tiojanco, M.D., 24th & Cherry, Kansas City, has become a member of Jackson County Medical Society. Dr. Tiojanco is a native of Manila, Philippines, received his preliminary education at the University of Santo Thomas and his M.D. degree at the University of Santo Thomas in 1964. He specializes in anesthesiology.

Gaetano Valenza, M.D., 8307 Jennings Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Valenza is a native of Palermo, Italy, received his preliminary education at Palermo High School and his M.D. degree at the University of Palermo in 1952. He specializes in obstetrics and gynecology.

Guillermo Vidals, M.D., 7540 Troost Ave., Kansas City, has become a member of Jackson County Medical Society. Dr. Vidals is a native of Vera Cruz, Mexico, received his preliminary education at the National University of Mexico and his M.D. degree at the National School of Medicine of Mexico in 1958. He specializes in general surgery.

Convalescing . . . but still a long way to go. Anxiety can make it even longer.

Convalescence following medical or surgical procedures may be almost endless to an anxious patient. And, indeed, anxiety with some patients actually retards progress—for example, by inducing insomnia and reducing cooperation.

As physicians have found during nearly 15 years of widespread use, Equanil may be a beneficial part of aftercare. It helps relieve anxiety and tension, thus often aiding your primary therapy.

Indications: For use in management of anxiety and tension occurring alone or as accompanying symptom complex to medical and surgical disorders and procedures. Though not a hypnotic, fosters normal sleep through antianxiety and related muscle-relaxant properties.

Contraindications: History of sensitivity to meprobamate.

Important Precautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use has been reported to result in dependence or habituation in susceptible persons, as alcoholics, ex-addicts, and other severe psychoneurotics. After prolonged excessive dosage, reduce dosage gradually to avoid possibly severe withdrawal reactions. Abrupt discontinuance of excessive doses has sometimes resulted in epileptiform seizures.

Warn patients of possible reduced alcohol tolerance, with resultant slowing of reaction time and impairment of judgment and coordination.

Reduce dose if drowsiness, ataxia or visual disturbance occurs; if persistent, patients should not operate vehicles or dangerous machinery.

Side Effects include drowsiness, usually transient; if persistent and associated with ataxia, usually responds to dose reduction; occasionally concomitant CNS stimulants (amphetamine, mephentermine sulfate) are desirable. Allergic or idiosyncratic reactions are rare, but such reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Previous history of allergy may or may not be related to incidence of reactions. Mild reactions are characterized by itchy urticarial or erythematous maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically as with epinephrine, antihistamine and possibly hydrocortisone. Aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia have occurred rarely, almost always in presence of known toxic agents. A few cases of leukopenia, usually transient, have been reported on continuous administration.

Meprobamate may sometimes precipitate grand mal attacks in patients susceptible to both grand and petit mal. Extremely large doses can produce rhythmic fast activity in the cortical pattern. Impairment of accommodation and visual acuity has been reported rarely. After excessive dosage for weeks or months, withdraw gradually (1 or 2 weeks) to avoid recurrence of pretreatment symptoms (insomnia, severe anxiety, anorexia). Abrupt discontinuance of excessive doses has sometimes resulted in vomiting, ataxia, tremors, muscle twitching and epileptiform seizures. Prescribe very cautiously and in small amounts for patients with suicidal tendencies. Suicidal attempts have resulted in coma, shock, vasomotor and respiratory collapse and anuria. Excessive doses have resulted in prompt sleep; reduction of blood pressure, pulse and respiratory rates to basal levels; and occasionally hyperventilation. Treat with immediate gastric lavage and appropriate symptomatic therapy. (CNS stimulants and pressor amines as indicated.) Doses above 2400 mg./day are not recommended.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. (All tablets also available in REDIPAK® [strip pack], Wyeth.) Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

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County Society News

SIXTH DISTRICT

COUNCILOR
WILLIAM D. BRADSHAW, M.D., CLINTON

Lafayette-Ray County Medical Society

The Lafayette-Ray County Medical Society met on May 13 at Maib's Cafe in Lexington with 20 members and guests present. Guests were Cynthia Herndon, third-year medical student from the University of Missouri Medical Center, who is taking her preceptorship with Dr. Sally Hubbard in Higginsville; Dr. Henry V. Guhleman of Jefferson City, psychiatrist, the guest speaker for the evening; Mr. James Struble, head of the Lafayette County Welfare Office and secretary of the Mental Health Program; and Mr. Robert Humbert, field representative of the Missouri Association for Mental Health.

Following dinner and a short business meeting, the program was turned over to Dr. Guhleman who discussed the Mental Health Program in Missouri and, more specifically, in the rural portions of the state.

The meeting was adjourned following the program.

Wayne Boydston, M.D., *Secretary*

West Central Missouri Medical Society

The West Central Missouri Medical Society met at Glenn's Cafe in Butler on June 12, 1969. Total attendance at the meeting was 23. The Society was pleased to have as guests the nurses who will manage the Coronary Care Unit at the Butler Hospital.

1.
2
Bill O'Malley
3
4

Following a social hour and dinner, the meeting was called to order by President William Haynie. Dr. Haynie introduced Dr. Keith H. Averill, cardiologist from Kansas City, who was the speaker for the scientific portion of the program. Dr. Averill chose as his topic "Cardiac Arrhythmia—Diagnosis and Management." His presentation was well documented with slides and was extremely practical, as well as interesting.

A business meeting followed Dr. Averill's presentation. Minutes of the previous meeting were read and approved. The Treasurer reported on the financial condition of the Society. Dr. Haynie discussed the results of the recent Blue Cross-Blue Shield board meeting concerning dissemination of information received by Blue Cross-Blue Shield about fees of individual doctors.

Under new business, the Credential Committee reported favorably on the applications of Drs. G. H. Reed, Robert D. Henry, James F. Harms and John Torontow for membership. Dr. A. W. Eklund moved and Dr. Carter W. Luther seconded the motion that the report of the committee be accepted and the doctors listed be voted members of the Society. The motion won unanimous approval.

The program committee reported that the next meeting of the Society will be on August 21, 1969. This will be the annual football meeting and will be held at the Country Club in Nevada.

There being no further business, the meeting was adjourned.

Roy W. Pearse, Jr., M.D., *Secretary*

NINTH DISTRICT

COUNCILOR
E. A. STRICKER, M.D., ST. JAMES

South Central Counties Medical Society

The South Central Counties Medical Society met at Holiday Inn in West Plains on May 28, 1969. Dr. and Mrs. M. C. Walton of Mountain View were host and hostess for the evening.

Dr. O. J. Hodges of Springfield, marriage counselor, discussed marriage counseling. His presentation was followed by an informative question-and-answer period.

At a brief business meeting, it was decided t suspend meetings during the months of June July and August.

Jack N. Wiles, M.D., *Secretar*

(Continued on page 680)

Our travel-pak for summer cold and allergy sufferers.

›vahistine LP can speed your tients on their way, by providing ompt and continuous relief from the mptoms of summer colds and ergies. These continuous-release ›lets contain a vasoconstrictor-tihistamine formulation that goes to ›rk rapidly and lasts for hours. en when nasal congestion is caused repeated allergic episodes, the nvenient twice-a-day dosage of ›vahistine LP makes it easy for most patients to enjoy relief all day and all night. When symptoms are severe, a third dose of one or two tablets may be safely given. Use with caution in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result.

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TENTH DISTRICT

COUNCILOR
EUGENE T. HANSBROUGH, M.D.,
POPLAR BLUFF

Mineral Area Medical Society

Mr. Michael Ingrasia of the Professional Relationship Department, General American Insurance Company, was the guest speaker at the Mineral Area Medical Society meeting on May 22, 1969. Mr. Ingrasia presented a discussion on recent changes in the Medicare Program.

Following his presentation, a brief business meeting was held. Dr. C. W. Chastain, Secretary, conducted the meeting in the absence of President T. R. Burcham and Vice-President R. E. Osborn. The minutes of the last regular business meeting on February 27 were read and approved. Following a discussion concerning current legislative matters, the meeting was adjourned at 9 PM.

Members and guests present were Drs. E. H. Hoctor, William Ford, Andrew Fraser, Tulio Estrada, F. R. Crouch, D. W. Chastain, William Forno, Jack Mullen, Stanton Hardy, Edward Mardini and C. H. Appleberry.

C. W. Chastain, M.D., *Secretary*

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In Memoriam

Post M. Hayward, M.D., Pleasant Valley, Conn., a graduate of Johns Hopkins University, 1912; member of St. Louis Medical Society; aged 83; died April 16, 1969.

Sewell, Minor F., M.D., Kansas City, a graduate of the University of Tennessee, 1916; member of Jackson County Medical Society; aged 81; died May 1, 1969.

Coffin, Ernest L., M.D., Lake Worth, Fla., a graduate of Washington University, 1909; member of St. Louis Medical Society; aged 83; died May 3, 1969.

Patton, William G., M.D., San Marino, Calif., a graduate of Vanderbilt University, 1910; member of Mineral Area County Medical Society; aged 82; died May 7, 1969.

Farrar, Charles B., M.D., Cape Girardeau, a graduate of Barnes Medical College, 1907; member of Mineral Area County Medical Society; aged 87; died May 10, 1969.

Titterington, Paul F., M.D., Atherton, Calif., a graduate of St. Louis University, 1920; member of St. Louis Medical Society; aged 74; died May 14, 1969.

Lytton, William B., M.D., St. Louis, a graduate of St. Louis University, 1933; member of St. Louis Medical Society; aged 62; died May 17, 1969.

Hall, Frank W., M.D., Cape Girardeau, a graduate of St. Louis University, 1932; member of Cape Girardeau County Medical Society; aged 61; died May 28, 1969.

Glennon, William P., M.D., St. Louis, a graduate of University College, Dublin; member of St. Louis Medical Society; aged 89; died June 11, 1969.

Sinclair, Alexander B., M.D., Kansas City, a graduate of St. Louis University, 1929; member of Jackson County Medical Society; aged 63; died June 25, 1969.

Now! 14 x 17 X-ray or Medical Record Cabinets within price range of open shelving with panel back-sliding doors. ADD A FILE—2 compartments, $70.00 F. O. B. factory in Illinois.

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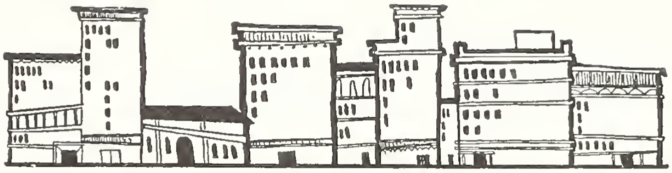
From the Medical Schools



ST. LOUIS UNIVERSITY

St. Louis University's highest award, the Fleur-de-Lis medal, was presented to Dr. C. Rollins Hanlon, chairman of the University's department of surgery, by Rev. Paul C. Reinert, S.J., University president, at a dinner given in honor of Dr. Hanlon at the St. Louis Club.

The citation preceding conferral of the award was read by Rev. Edward J. Drummond, S.J., vice president, Medical Center, who praised Dr. Hanlon "for what he has achieved and for what he stands for as man and physician and educator." He pointed out that Dr. Hanlon, during his 19 years in St. Louis, had cared for more than 2,700 patients and had performed more than 1,200 open heart operations including the first one in St. Louis in 1956.

Dr. Hanlon also received a silver wine cooler inscribed with the names of his fellow Medical School department chairmen. Dr. Robert H. Felix, dean of the School, presented the memento on behalf of the administrative faculty.

Dr. Hanlon will leave the University next month to become director of the American College of Surgeons, in Chicago.

Ninety-nine medical graduates who attended the annual Senior Day Ceremony were led in the recitation of the Hippocratic Oath by Dean Robert H. Felix. Many of the graduates were recipients of achievement awards at the ceremony which was held at the St. Louis Medical Society.

Dr. C. Rollins Hanlon, who addressed the graduates on "After Medical Education—What?," was the recipient of a surprise award, a plaque of appreciation from the graduates. Two physicians graduated magna cum laude. They were **Dr. Wolfgang W. Strobl of Tiffin, Ohio, who was the recipient of the Missouri State Medical Association's award in recognition of outstanding achievement in the study of medicine** and Sister Maria A. Williamson, Long Island, N. Y.

Eleven medical students graduated cum laude. Thirty-four of the graduates will begin internships at hospitals in the St. Louis area in July. Eight of those remaining are from the St. Louis area. Twenty-nine of the physicians will take internships at the St. Louis University Group of Hospitals. Two graduates will take a straight internship at St. Mary's. Three graduates will intern at St. John's Mercy Hospital.

Dr. C. Rollins Hanlon *(center)* is the 21st recipient of the Fleur-de-Lis medal, St. Louis University's highest award. Conferral of award was by Rev. Paul C. Reinert, S.J., University president *(left)*. Rev. Edward J. Drummond, S.J., vice-president, University Medical Center, read the citation.

A daily pollen count service has been established at the St. Louis University Hospitals to provide allergy sufferers with the ragweed, grass, tree and mold spore counts. A telephone call to PRospect 1-7600 and a request for Line 4 furnishes the allergy victim with the count taken during the past 24 hours. This community service is under the direction of Dr. Raymond G. Slavin, assistant professor of internal medicine and director of allergy and immunology section, department of internal medicine. The service will continue until November 1 and will resume again in April of 1970.

Dr. Morton M. Weber, professor and chairman of the department of microbiology, was invited by the Universita Degli Studi Di Bari to participate in a round table discussion on "Electron Transport and Energy Conservation" in Torre Canne, Italy, in May. He also was invited to present seminars on the role of vitamin K and factors in energy-linked electron transport by the Laboratoire D'Enzymologie, Centre National de la Recherche Scientifique, Gif-Sur-Yvette, France and by the Department of Biochemistry at the University of Oxford, Oxford, England.

Dr. Eli M. Nabel, professor of pathology and associate dean at the St. Louis University School of Medicine, has been appointed to the Institutional Research Program Advisory Committee of the Veterans Administration.

Dr. Bernard Korol, associate professor, department of neurology and psychiatry, School of Medicine, has been elected to the American Society for Pharmacology and Experimental Therapeutics.

WASHINGTON UNIVERSITY

Twenty-two students of the School of Medicine were recipients of honors at Senior Awards Night in the St. Louis Medical Society Auditorium.

The 82-member class received Doctor of Medicine degrees on June 9 in commencement exercises in Washington University's Brookings Quadrangle.

David R. Krauss, St. Louis, was the recipient of the Missouri State Medical Association Award, a scroll and a U. S. Savings Bond, presented annually to an honor graduate of the senior class.

Other Missourians who were recipients of special awards included David A. Zopf, Jeffrey Ross, Steven Goldring, William Berman, Jr. and John L. Trotter, St. Louis; Richard G. Wyatt, Lebanon; and Curtis W. Schupbach, Sedalia.

TB is still around.

In 1967 almost 45,000 new active cases were reported. Isn't that a good reason to make tuberculin testing with the white LEDERTINE™ Applicator a routine part of your physical examinations?

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(Rosenthal) with Old Tuberculin

Precautions: With a positive reaction, consider further diagnostic procedures. Use with caution in persons with active tuberculosis or known allergy to acacia. Vesiculation, ulceration, or necrosis may occur at the test site in highly sensitive persons.

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Project HOPE President William B. Walsh, M.D., addressed the 1969 graduating class of the School of Medicine during Senior Awards Night in St. Louis Medical Society Auditorium. He spoke on "New Directions for HOPE."

Dr. Walsh founded The People-to-People Foundation, Inc. and Project HOPE (Health Opportunity for People Everywhere) in 1958 to bring health care to undeveloped countries and to train medical personnel there. In eight years, the white hospital ship S.S. HOPE has visited six nations, treating more than 120,000 patients and training 4,000 physicians, nurses and technicians.

Colin Campbell Rorrie, Jr., Ph.D., has been appointed the first director of continuing education and instructor in hospital administration at the School of Medicine. Dr. Rorrie, formerly assistant to the executive director of the American College of Physicians, received the B.A. degree in 1964 from Beloit College and the M.A. and Ph.D. degrees from University of Iowa.

Malcolm H. McGavran, M.D., associate professor of pathology, has been elected chairman of the Washington University School of Medicine Faculty Council. The organization is composed of professors and associate and assistant professors holding tenure appointments.

Mark A Stewart, M.D., associate professor of psychiatry and of pediatrics, was named vice-chairman. Secretary is David Kennell, Ph.D., assistant professor of microbiology. David Schlessinger, associate professor of microbiology, has been selected preclinical faculty representative to the Executive Faculty.

The School of Medicine has received a $5,000 unrestricted grant from Research to Prevent Blindness, Inc. for research in the department of ophthalmology.

Since 1960, RPB, a national voluntary research foundation, has made annual awards totalling $50,000 to the Medical School and has provided more than $1.3 million in unrestricted grants to 40 medical institutions.

UNIVERSITY OF MISSOURI

Eighty-four candidates for the M.D. degree at the School of Medicine, their families and friends heard an address by John M. Russell, president of the John and Mary R. Markle Foundation, at pre-commencement exercises on June 3 in Jesse Hall auditorium.

The new physicians repeated the Oath of Hippocrates led by Dr. Norman Asel, professor in the department of medicine, and received their academic hoods in an investiture ceremony led by Dr. Bertis A. Westfall, chairman of the department of pharmacology, and Dr. Robert L. Jackson, chairman of the department of pediatrics.

Academic honors for members of the graduating class were announced by Dean William D. Mayer.

Stephen Achuff, St. Louis, was the recipient of the Missouri State Medical Association's annual award in recognition of outstanding achievement in the study of medicine.

Other Missourians who received special awards included George Comfort, Columbia; James Carter, Kansas City; Dale Ritterbusch, Bland; Conrad Fulkerson, Plattsburg; Donald G. Minor, Moberly; Timothy Taft, Kirkwood; and Ralph Mennemeyr and Paul Gatens, St. Louis.

To further medical training in general family practice at the School of Medicine, a fund totalling approximately $60,000 in common stocks and cash has been established by the Josephine and Jennie H. Mincke Charitable Trusts. The gift to the School of Medicine was made possible through the interest of Dr. Preston C. Hall, St. Louis, a trustee of the Mincke sisters' estate and former president of the Missouri Academy of General Practice.

Dr. Hall followed his father as family physician for the late Misses Mincke. In gratitude for the health care given them by the Hall family for nearly 80 years, the sisters established a fund to further medical education and research, with particular emphasis on family practice. Missouri Baptist Hospital, St. Louis University and Washington University medical schools also shared in the bequest.

A research career development award has been made to Dr. Franklyn G. Knox, assistant professor of physiology. The award from the National Institutes of Health (U. S. Public Health Service) will provide for the full salary support of Dr. Knox during the next five years. Only two other faculty members at the School of Medicine—Dr. Douglas M. Griggs, Jr., associate professor of physiology, and Dr. Constantine S. Anast, professor of pediatrics—presently hold such an award.

Dr. Knox

Dr. Knox's research has centered on a study of the regulation of sodium and water excretion by the kidneys and its relationship to heart failure and the body's abnormal retention of fluids.

The Council Reports

(Continued from page 634)

Dr. Pernoud reported on a recent survey of ophthalmologists in Missouri. He concluded that, as in other fields of medical practice, there is a need for more ophthalmologists and additional ancillary help. He said that concerted efforts are being directed toward alleviating this problem.

Drs. Van Peenen and Lucas from the Department of Pathology, University of Missouri, presented a detailed explanation of the Missouri Regional Medical Program's proposed Small Clinical Laboratory Improvement Program. The Council voted to accept the proposal but defer any consideration for approval until an opinion is received from the Association's Committee on Laboratory Medicine.

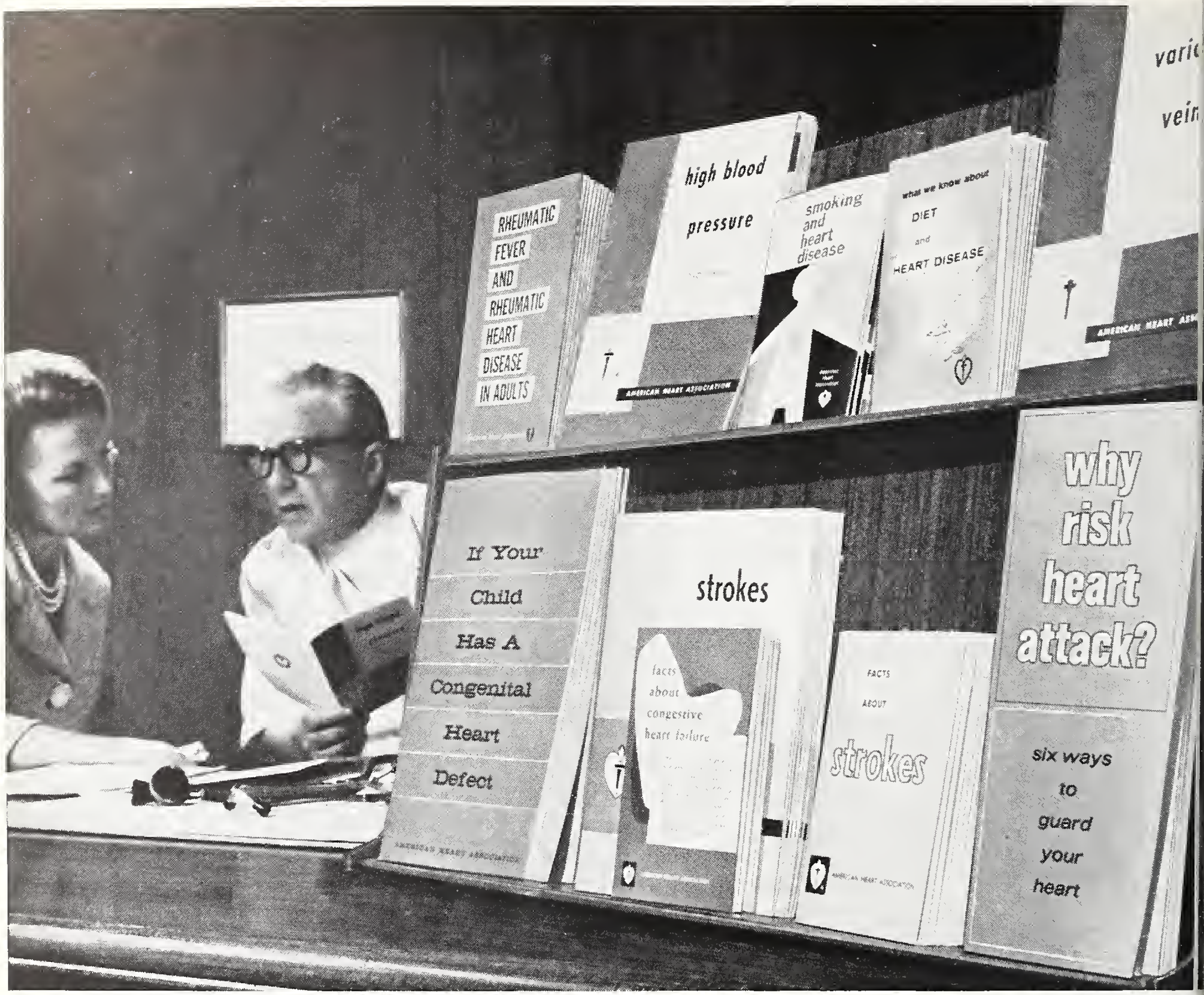
Resolutions passed by the House of Delegates specifying action by the Association were discussed and referred to appropriate committees.

It was announced that Dr. William Shaw, Chairman of the Missouri Medical Advisory Committee to the Selective Service, has retired and the MSMA has been requested to submit names of nominees to be considered as a replacement for Dr. Shaw. Dr. Shaw's outstanding service to the citizens of the state was recognized by the Council and a letter acknowledging his efforts and accomplishments as Chairman of the Committee will be sent to Dr. Shaw by MSMA President McCraw.

A motion to hold the next County Society Officers Conference in conjunction with a Council meeting on Jan. 30-Feb. 1, 1970 at Ramada Inn in Jefferson City was approved.

The next meeting of the Council will be held on Sept. 5-7 in St. Joseph.

This report covers the highlights of the June Council meeting. The complete official report of Council proceedings is on file in the Executive Office of MSMA and copies have been sent to all members of the Council and to component medical societies.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high blood pressure
smoking and heart disease
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AMERICAN HEART ASSOCIATION
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Your Heart Association can help you help your patients

Your patients and their families might have questions about the heart and blood vessel diseases. Your Heart Association has prepared a variety of pamphlets to assist you in answering their questions in simple non-technical language.

Produced under the guidance of leading cardiovascular specialists, these pamphlets deal with such subjects as heart attack, stroke, hypertension,
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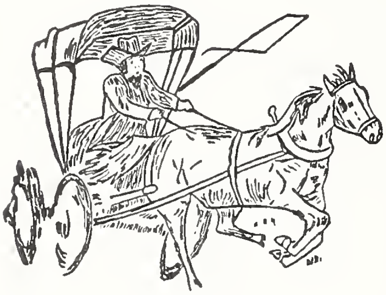
Missouri Medicine in Review



FORTY YEARS AGO

A Missourian shared in one of the year's chief contributions to the knowledge of yellow fever. The work of Dr. E. V. Cowdry, professor of cytology at Washington University School of Medicine (now on leave to the Rockefeller Institute), was a principal factor in establishing the identity of African with South American yellow fever, long believed to be separate diseases. It was demonstrated that in Africa, at least, other mosquitoes besides the Aedes Aegypti are capable of carrying the disease.

A central radio receiving set with headphones at every cot, loud speakers in the various recreation rooms and a microphone on the stage of the hospital theater for broadcasting programs has been installed at the Veterans' Hospital at Jefferson Barracks, St. Louis.

Reverend Father Alphonse J. Schwitalla, Dean of the St. Louis University School of Medicine, announced changes in the organization of the departments. They include the establishment of a full department of radiology with Dr. LeRoy Sante as director, the division of the anatomy department into a section of micro-anatomy with Dr. Albert Kuntz in charge and a section of the gross anatomy department with Dr. Daniel M. Schoemacker in charge.

The present Regius Professor of Medicine at Oxford University, Sir E. Farquhar Buzzard, says that "mental hygiene as a branch of medical science has been a miserable, neglected and stunted plant" and then calls attention to "some of the weeds that have choked the plant we would see flourish."

TWENTY-FIVE YEARS AGO

Major Benjamin H. Charles, St. Louis, has received the Bronze Star Medal.—Dr. C. E. Burford, St. Louis, presided as President at the meeting of the American Urological Association in St. Louis on June 19-22.

Dr. George Dock, Los Angeles, was awarded the Distinguished Service Medal by the House of Delegates of the AMA. Dr. Dock was Professor of Medicine at Washington University School of Medicine from 1910 to 1922. He is known for his work on the pathology of malaria and dysentery protozoan diseases of the blood, pernicious anemia, the ductless glands and hookworm.

The Barry-Lawrence-Stone County Medical Society held its regular meeting on May 9 at Crane. A complimentary dinner was served by the women of the Presbyterian Church in honor of Dr. Homer L. Kerr of Crane. Dr. Wallas Smith, Springfield, pointed out that Missouri has more than done its share to supply physicians for the Armed Forces, which is one reason for the critical shortage of doctors in certain rural areas in Missouri.

TEN YEARS AGO

Vernon E. Wilson, M.D., acting Dean of the University of Kansas School of Medicine, has been appointed Dean of the School of Medicine at the University of Missouri. The appointment was approved on June 29 and Dr. Wilson will resume his duties on November 1. Dr. Roscoe L. Pullen resigned the deanship on March 24.

Avery A. Drake, M.D., Rolla, was an honored guest at meetings of the Council and Grand Chapter of York Rite Masonry in St. Louis recently.—The *Lebanon Rustic-Republican* carried a story and pictures of Dr. J. W. Lindsay, Conway, telling of his 54 years of practice in the community.

A highlight of the AMA Annual Session in 1959 was the appearance of President Dwight D. Eisenhower, who addressed an overflow audience of more than 5,000 at the Tuesday night inauguration of Dr. Louis M. Orr of Orlando, Fla., the 113th President of the American Medical Association. It marked the first time that a President of the United States has addressed an AMA annual or clinical meeting. Dr. E. Vincent Askey, Los Angeles, Speaker of the House of Delegates since 1955, was named President-Elect for the coming year.

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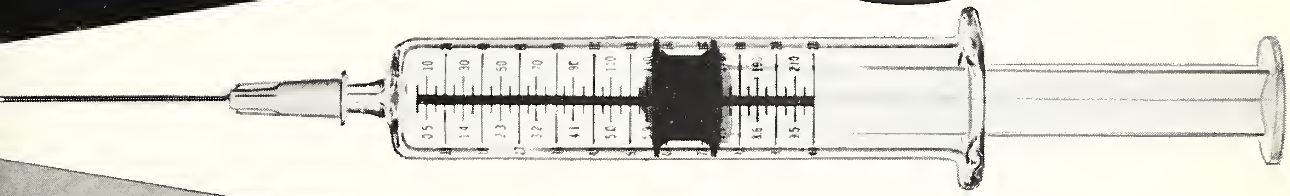

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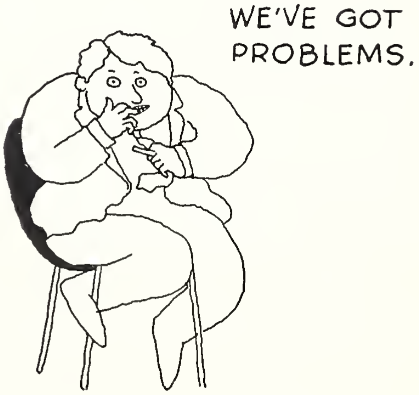
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Special Feature

Yong Il Kim of Korea *(holding camera)* photographs Dean William D. Mayer with a group of the foreign medical scholars who visited the University of Missouri School of Medicine at the conclusion of the Conference.

Foreign Medical Scholars and American Medical Education

JOHN T. LOGUE, M.D., ***Columbia***

SIXTY-THREE foreign medical scholars from 20 countries scattered around the globe gathered at Tan-Tar-A, Lake of the Ozarks on June 10-13, 1969 for the 13th Annual Conference on American Medical Education for Foreign Scholars in the Medical Sciences. They represented some 50 American universities or medical centers where they currently are involved in postgraduate fellowship training.

The Medical School of the University of Missouri—Columbia served as host for this yearly conference which is sponsored by the China Medical Board of New York, Inc., The Rockefeller Foundation, The Conference Board of Associated Research Councils, The United States State Department, The United States Public Health Service, The World Health Organization and The American Medical Association.

An interesting report on the first Conference on American Medical Education for Foreign Scholars in the Medical Sciences to be presented at the University of Missouri School of Medicine. Dr. Logue served as Liaison Officer for the meeting. Photos are by Mary Kay Yeargain, Publications Director for the University of Missouri—Columbia Medical Center.

The Conference is coordinated by the Division of International Medical Education of the Association of American Medical Colleges through liaison officers on each Medical School Campus. It is presented each year at a major American University Medical Center and is designed to acquaint the foreign scholars with the distinctive characteristics of higher education in this country and some of the major contemporary issues confronting American education and to explore some of the educational concerns common to universities in this country and abroad.

Education of the Health Professions in the

United States: Ideal and Real, the broad subject of this year's deliberation was highlighted by talks on *National Goals of Education* by Hans Mauksch, M.D., Professor of Community Health and Medical Practice of the University of Missouri; *The Role of Institution and Organizations* by Robert Felix, M.D., Dean of the St. Louis University School of Medicine; The *Operation and Scope of the University Medical Center* by William D. Mayer, M.D., Dean of the University of Missouri School of Medicine; *Education and Evaluation in the Medical Schools* by D. Dax Taylor, M.D., Assistant Dean, University of Missouri School of Medicine, *Medical Students Today and Tomorrow* by James Bartlett, M.D., Associate Dean, University of Rochester School of Medicine and Dentistry; and the *Performance of the Educational System* by Vernon E. Wilson, M.D., Vice-President for Academic Affairs of the University of Missouri.

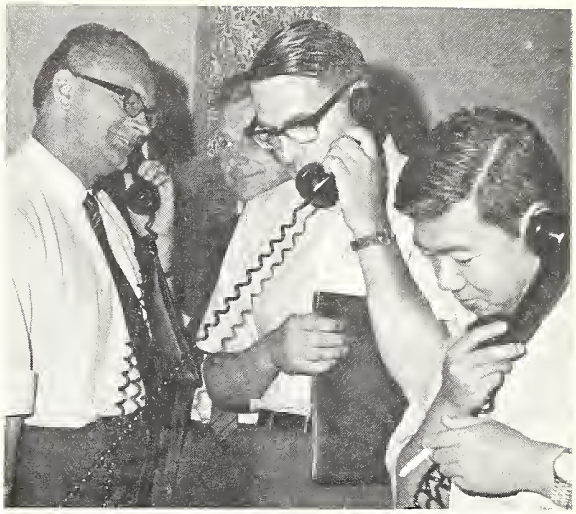
Following each presentation, small informal discussion groups met to explore the implications of the problems presented by comparison to similar situations abroad.

The Missouri Regional Medical Program's presentation of evolving communication and computer techniques which are designed to augment medical education efforts and medical care delivery both here and abroad received continuing interest of the participants. Many had electrocardiograms recorded and transmitted by telephone for interpretation by the computer center at the University of Missouri with near instantaneous reports back to the scholar by teletype. Simultaneous telephone medical lectures in English, German, French, Malay and Chinese were used to demonstrate the effectiveness of a multilanguage lecture system. Undoubtedly, these techniques soon will be used to establish an intercontinental multilanguage television educational network.

All of the conference participants agreed that the world's medical needs and demands cannot be met by present health care delivery systems, and most of the foreign scholars and conference faculty now recognize that man must harness the technology of communication and computer to multiply his effectiveness in the delivery of health care on a world wide basis.

At the conclusion of the conference, many of the participants visited the departments of their primary interest at the Medical Center of the University of Missouri—Columbia.

The highlight of the trip from Tan-Tar-A to Columbia was a picnic lunch in the gardens of the Governor's Mansion, which provides an unusual view of the Capitol Building in Jefferson City.



Simultaneous medical lectures in German, French, English, Malay and Chinese were presented by the Missouri Regional Medical Program at the Lake of the Ozarks meeting.

Dr. Oliver McCoy of the China Medical Board of New York, Inc. participates in a small, informal discussion group which was characteristic of this Conference.

Existing medical education systems in America and abroad are in the midst of a severe crisis. Demands for the services of well-trained health personnel are increasing faster than the supply. Scholars from the developing countries, American education, research and practice personnel who gathered together at the 13th Annual Conference have been privileged to share common problems, past and present, and to stand together on the threshold of a new era of medical education where man must harness the capabilities of computer and communications to augment his efforts in medical education here and abroad.

Delegates Report

Disruptive Actions by Students Fail to Halt AMA Convention

Disruptive attempts by approximately 40 dissident medical students and their followers failed to keep the 1969 convention of the American Medical Association in New York City on July 13-17 from being one of the busiest in the 118-year history of such meetings.

In all, the AMA House received 59 reports from the Board of Trustees, the Executive Vice-President and standing and special committees, in addition to 137 resolutions. The House adopted 30 reports, adopted and referred one other, amended and adopted five, approved 17 and accepted two for information. Four required no action. Of the 137 resolutions, 17 were adopted, 28 were adopted as amended or a substitute was adopted, 30 were referred with or without amendments, 44 were combined with one or more other resolutions before action was taken, one as partially adopted and partially referred, 15 were rejected and two were withdrawn.

The MSMA was represented by all of its Delegates and Alternates plus several Association officers. In attendance were Delegates Arthur W. Neilson, St. Louis; Hector W. Benoit, Jr., Kansas City; Stanley S. Peterson, Springfield; and J. Loren Washburn, Versailles; and Alternates Robert Kelley, St. Louis; Hugh E. Stephenson, Jr., Columbia; James Sisk, St. Louis County; and Rae Froelich, Lebanon. Dr. Benoit served as a member of Reference Committee E. Also in attendance were President Doyle C. McCraw, President-Elect Joseph Fisher and Immediate Past-President David N. Kerr. Radiologist Wendell Scott of St. Louis served as official delegate for his section. A number of other MSMA officers and members were among the thousands of physicians who registered for the meeting.

Also in attendance were Mrs. James A. Reid, Marshall, President of the MSMA Woman's Auxiliary; President-Elect Mrs. William M. Walker, Springfield and Mrs. Richard Sutter, St. Louis, past-president of both the AMA Auxiliary and MSMA Auxiliary.

Of the 137 resolutions, four were introduced by the MSMA. House actions on the Missouri resolutions were as follows:

Resolutions # 76 and # 77 called for AMA denunciation of the unilateral action taken by the

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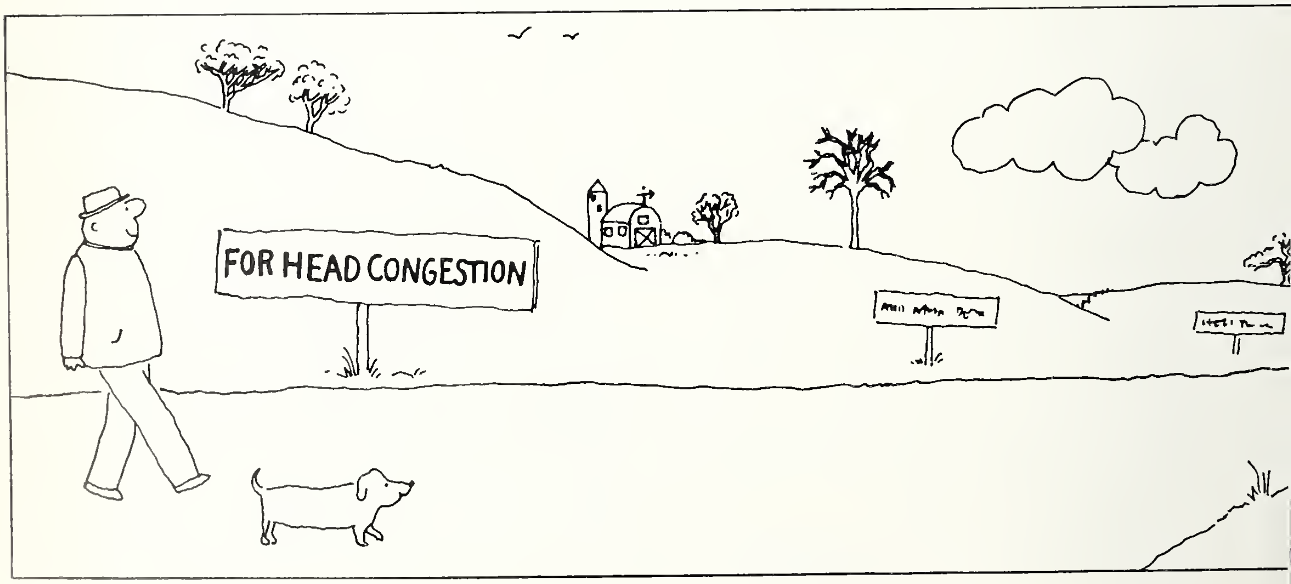

Department of Health, Education and Welfare in regard to physician fees under Medicare and Medicaid along with a continuation of the fee for service principle in both programs with reimbursement continued on the basis of usual and customary fees. The resolutions also called for the use of peer review mechanism in efforts to uncover abuses in both programs.

The two were combined with eight others on similar subjects and the following substitute was adopted:

WHEREAS, Actions taken by DHEW to set rigid limits on levels of payments of physicians who provide services under Medicaid appear in contradiction to Congressional intent that Medicaid patients receive care on the same basis as private patients; therefore, be it

Resolved, That the American Medical Association urge a reassessment by Congress of its intent and priorities in relation to Title XIX.

Missouri-sponsored Resolution # 74 dealt with the subject of Medical Professional Liability Insurance and called for an investigation by the Judicial Council and the Board of Trustees of the increasing rates for insurance coverage, including the possible formation of a medical liability insurance plan sponsored and supported by the American Medical Association or in cooperation with insurance underwriters or both. It was grouped with a report of the Board of Trustees and five other resolutions for committee consideration.

The following substitute resolution was adopted by the House:

Resolved, That the American Medical Association should not attempt to establish a nationwide professional liability insurance program either by sponsorship or a program underwritten by an existing carrier or by seeking to establish a new insurance carrier; and be it further

Resolved, That the American Medical Association serve as a clearing house and data bank for the constituent state associations with respect to all available information on medical professional liability and liability insurance; and be it further

Resolved, That the Board of Trustees be directed to continue the study and search for effective solutions to problems of medical professional liability and liability insurance, through the Committee on Medicolegal Problems and other appropriate Councils, Committees and Divisions of the Association, and to report the results thereof to the House of Delegates at each Annual Convention.

Also in the field of professional liability insurance the AMA called on constituent members to push for enactment of "appropriate state legislation designed to provide a more efficient and equitable determination of malpractice claims and litigation."

Members of the Association were urged to cooperate with hospital associations and third-party payors in exploring and developing the possibility of pilot programs which will provide scheduled benefits for persons injured as a consequence of medical accidents occurring in the delivery of health care, irrespective of fault.

Also urged was the establishment of malpractice insurance workshops to include participation by members of the health profession, attorneys and legislators.

The fourth Missouri resolution, # 75, called for action by the legislative and executive branches of the government of the United States to take all necessary steps to promote an active effort to recruit discharged medical service personnel and to interest them in health careers.

This resolution was lumped with four others in the field of nursing and paramedical care and a substitute resolution was approved. The resolve, which included the Missouri proposal, stated the following:

Resolved, That appropriate steps be taken by the American Medical Association to encourage recruitment from the health

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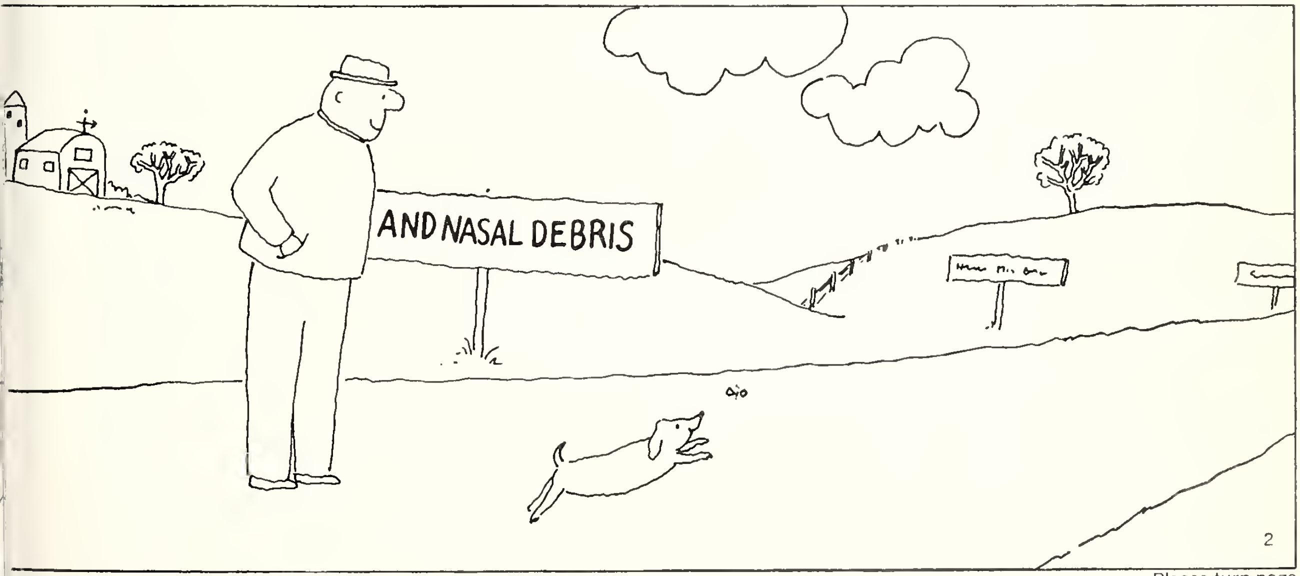

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professions, of health-oriented personnel released from the armed services, that the cooperation of allied health professions and vocations be sought in this effort and that such action be referred to the Board of Trustees and its Council on Health Manpower for implementation.

The same resolution reaffirmed AMA support of all forms of nursing education including baccalaureate, diploma, associate and practical nurse education programs and encouraged the continuation of federal, state and local subsidies to schools of nursing education.

After lengthy floor debate, the House of Delegates voted that Doctors of Osteopathy may become regular members of the American Medical Association.

To become regular members of the AMA they would first have to be regular members of their county societies and state medical associations.

Wording of the AMA bylaw change reads as follows:

> "(A) Regular members—Regular membership shall be limited to those members of a state medical association who hold the degree of doctor of medicine or bachelor of medicine, or who hold an unrestricted license to practice medicine and surgery, and are entitled to exercise the rights of membership in their state medical associations, including the right to vote and hold office, as determined by their state medical associations."

The House also approved a Board of Trustees report and a companion resolution dealing with the training of osteopaths.

The report stressed that five specialty boards (pediatrics, radiology, pathology, preventive medicine and physical medicine and rehabilitation) had taken affirmative action to permit examination of osteopathic graduates for certification.

The resolution stipulates that the AMA "urges the medical schools, the state boards of medical examiners and the Association of American Medical Colleges to explore the possibility of developing reasonable curricula on the postgraduate level for awarding an M.D. degree to qualified osteopaths, enabling them to meet the standards required for appointment to staffs of hospitals, and for acceptance for both association with and membership in county and state medical associations and the AMA."

The House adopted a report urging that state medical associations, county societies and physicians individually direct "unstinting effort" to promote the proposed program of income tax credits for financing health care and "publicize the advantages inherent in this approach to preserve and strengthen the voluntary system."

Also encouraged was the development of prepayment medical insurance programs in which the payment to the physician is based upon the usual, customary or reasonable fee concept and that "any reference to 'paid-in-full' coverage clearly identify those services which are indeed covered on a 'paid-in-full' basis and, also, identify the circumstances under which these services must be rendered."

The medical profession's strong commitment toward improvement of health care for the poor was reemphasized when the House adopted a report from its Committee on Health Care of the Poor. The report calls for the AMA to develop programs which will provide for comprehensive health care to the poor.

Among concepts stressed by the report are

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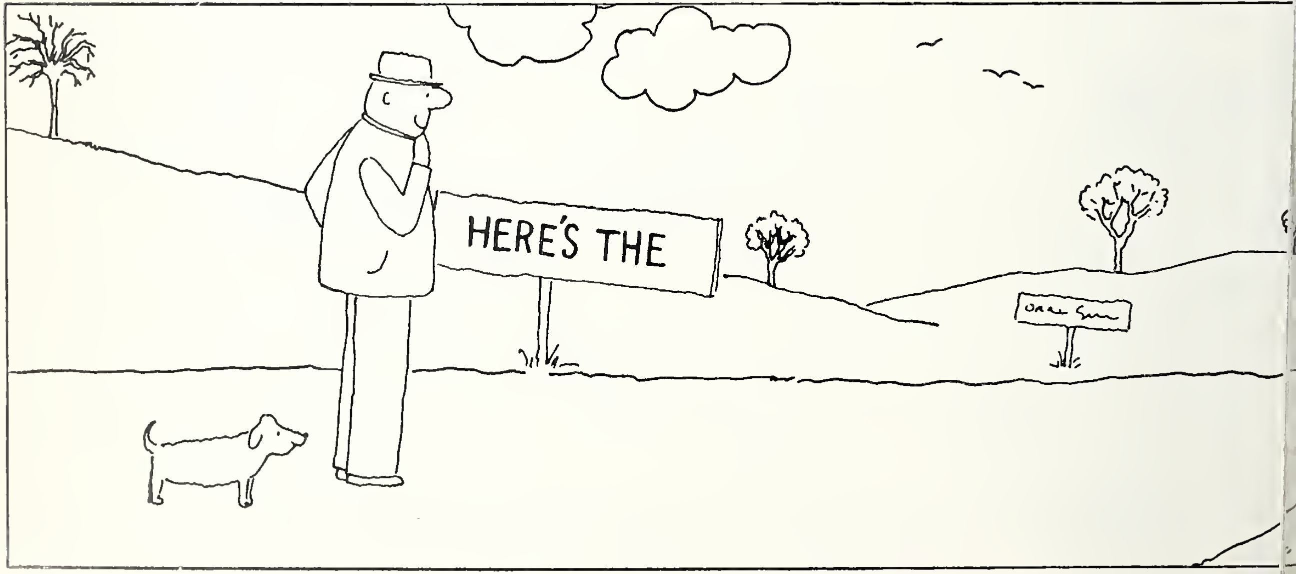

(1) providing comprehensive health care to the poor is a desirable goal, (2) it must be a continuing program that identifies both short-range and long-range activities, (3) the Committee's purpose must be to implement the research that has been done on unmet needs for health services, (4) the program must provide for participation of the poor in planning projects for their communities and (5) physicians should work with numerous other organizations, both in and out of the health field, who have expressed concern about improving health care of the poor.

The House also reaffirmed the position of the AMA when it concerns medical care as a right by stating "(1) that it is a basic right of every citizen to have available to him adequate health care, (2) that it is a basic right of every citizen to have a free choice of physician and institution in the obtaining of medical care and (3) that the medical profession, using all means at its disposal, should endeavor to make good medical care available to each person."

The AMA House changed its policy regarding federal loans to medical students by approving a joint report of the Board of Trustees and the Council on Medical Education which calls for an increase in financial support of medical schools by the federal government to permit a major increase in the enrollment of medical students and the production of physicians. The change was considered justified due to current fiscal conditions which make it increasingly difficult for students to obtain loans from the private sector.

The House rejected a relicensure program by approving a report recommending that "the physician's continued competency to provide quality health services be maintained by every practical means available; that a relicensure program not be considered at this time; that peer-group evaluation be continually utilized and improved; that methods of improving the availability and the content of continuing education programs be continually investigated and refined and that additional incentives be positive in nature and come from within the profession."

The House adopted a Judicial Council report, "Review of Ethical Considerations Relating to Clinical Laboratories," which ended with the paragraph, "Where it is necessary for the attending physician to bill his patient for services performed by a clinical laboratory, the bill submitted by the attending physician to his patient should state the name of the clinical laboratory performing the service for his patient and state the exact amount of the laboratory charge paid or to be paid by the physician to the clinical laboratory."

Also adopted was the resolution stating that the "attending physician is entitled to fair compensation for the professional services he renders. He is not engaged in a commercial enterprise, however, and any markup, commission or profit on the services rendered by a laboratory is exploitation of the patient."

The House also approved a new program concerning sex education. While recognizing "that the primary responsibility for family-life education is in the home," the House supported in principle the inauguration by State Boards of Education or school districts, whichever is applicable, of a voluntary family life and sex edu-

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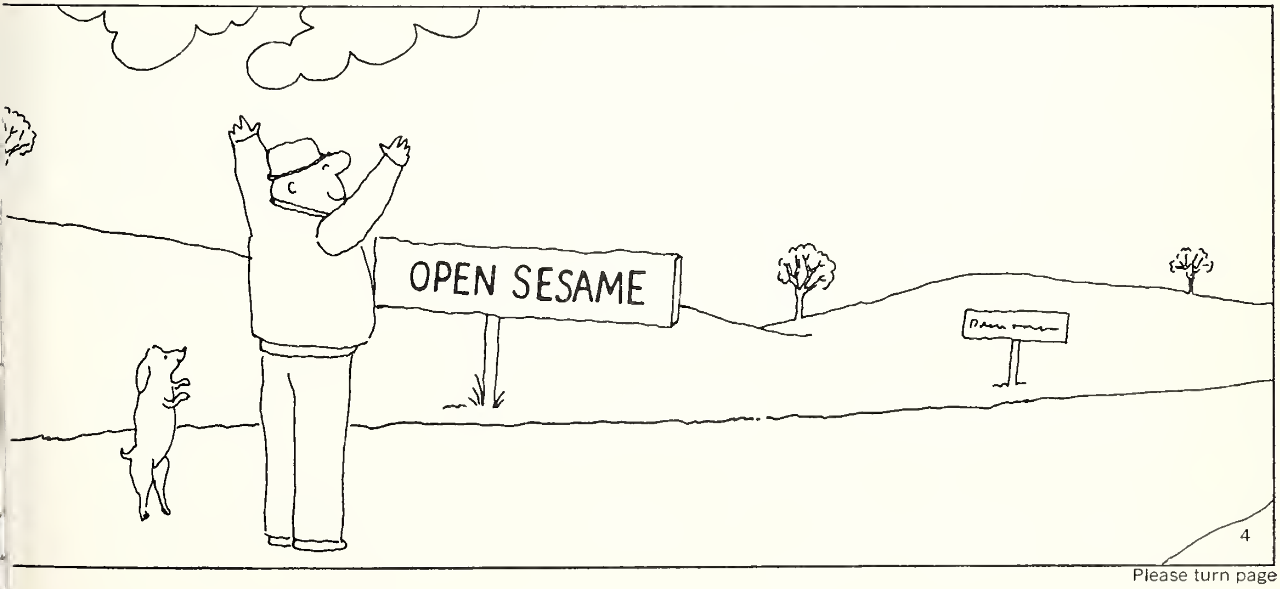

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cation program at appropriate grade levels, as follows:

"(1) As part of an overall health education program; (2) presented in a manner commensurate with the maturation level of the students; (3) following a professionally developed curriculum foreviewed by representative parents; (4) including ample and continuing involvement of parents and other concerned members of the community; (5) developed around a system of values defined and delineated by representatives comprising physicians, educators, the clergy and other appropriate groups; and (6) utilizing classroom teachers and other professionals who have an aptitude for working with young people and who have received special training."

Two resolutions concerning the use of credit cards to pay for medical care were referred to the Judicial Council for information "with the expectation that additional opinions will be rendered as experience accumulates." In certain states, a charge card system is under experimentation by the state medical society and is deserving of a chance to prove its merits. Also, the Judicial Council has ruled that the use of a charge card system should be flexible and at the discretion of the individual state medical societies.

Steps also were taken during the session to achieve greater unity within the medical profession and, at the same time, strengthen scientific programs by inviting national medical specialty societies to play a more active and responsible role and giving those societies a privilege of participating in the selection of section delegates in the AMA House and other section officers.

Each section will establish its own council. After the 1970 Clinical Convention, medical specialty societies will be invited to help form section councils. Membership of these councils "shall be selected by the national specialty societies listed in the American Medical Directory apportioned on the basis of the number of AMA members belonging to each specialty society and one member to be elected by the scientific section from the section membership."

At the 1971 Annual Convention, establishment of AMA section councils will be reported to each specialty section. The Councils become effective on Jan. 1, 1972. All section councils will be under the direction of the Board of Trustees and will be governed by rules established by the Board and approved by the House.

The House approved a new statement concerning the cost of medical care, including "The physician's influence on the costs of health care will be in proportion to his conscious efforts to adhere to practices which conserve the resources of his patient. As the provider of medical service, the doctor has a significant and responsible role in any organized effort to control health care expenditures. In this role, the physician has a challenge to maintain and improve a system that best serves the public and is most acceptable to him and to the profession of which he is a part."

Peer review also came in for consideration

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with the House stressing the need to "secure universal acceptance and application of the peer review concept as the most meaningful method for creating a public awareness of medicine's efforts to secure high quality of health services at a reasonable cost."

The House also resolved that the AMA "be urged to seek changes in the medicare law to allow direct admission to extended care facilities when eligible patients' conditions require less than acute hospital care."

The House once again took a stand concerning cigarette smoking by "again urging AMA members to play a major role against cigarette smoking by personal example and by advice regarding the health hazards of smoking." Also, the House resolved to indicate to Congress "the incongruity of the expenditure of tax dollars to promote the production and sale of tobacco while, at the same time, spending other tax dollars to discourage cigarette smoking because of its hazard to health."

Unification of the entire medical profession was stressed in a House resolve which called on the Board of Trustees to begin a study of physicians who are not members of the AMA to be followed by recommendations regarding how the medical profession may more wisely unify itself under the AMA banner and to encourage nonparticipating physicians to join.

The AMA House recommended that physicians nominated by members of the hospital staff should represent the medical staff on the governing boards of hospitals. The resolution asserted that these physicians should have full voting rights on the board.

United States Vice-President Spiro Agnew and Roger O. Egeberg, M.D., Assistant Secretary of HEW for Health and Scientific Affairs, were among the speakers for the convention.

The Vice-President, in his address, praised the medical profession for its achievements in the health field "which have virtually eliminated so many fatal, crippling and debilitating diseases in this country and around the world."

Mr. Agnew spoke on the theme of pollution, describing a number of antipollution programs being undertaken or planned by the federal government in cooperation with the states and the private sector. He emphasized that "Private professional organizations like the AMA will have a role to play in encouraging environmental improvement. Your increasing voluntary participation at the state and local level can result in greater public support to enlarged programs."

Dr. Egeberg talked about the rising cost of health care, advances in medical science and the fact that physicians are working long, hard hours.

At the same time, he said that in addition to taking care of those in front of them who need help, physicians should look around and find new ways of distributing medical care.

Dr. Egeberg stated that the nation has reached the crisis stage in the delivery of health care and called for cooperation between the govern-

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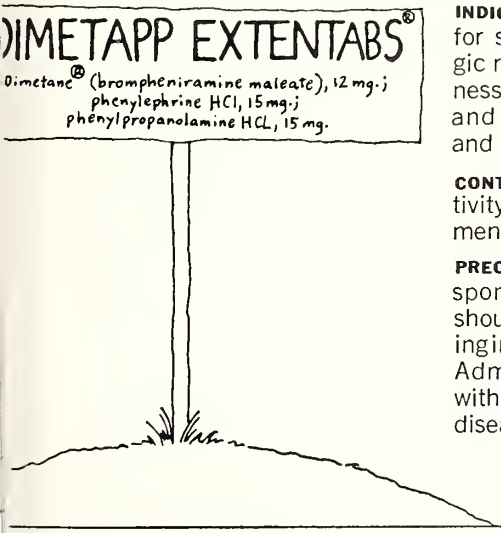
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6

ment and those in the health care field to solve the tremendous problems which exist.

In his final address, retiring AMA President Dr. Dwight Wilbur said, "We can meet the health needs of the American people, but we cannot meet them alone. . . . As we look to the future, we must constantly ask ourselves the right questions and try to find the right answers—answers based, as often as possible, on fact and experience tempered to the needs of people in rapidly changing society."

Incoming President Dr. Gerald D. Dorman listed three goals toward providing the best possible health care to all our patients who need it. They are "(1) a constantly advancing health care system in America, (2) a widespread respect for the leadership and a widespread recognition of the contributions of the medical profession and (3) enhanced functioning of the medical profession.

"Number one," he said, "must be based on incentives and freedom of opportunity. Incentives are needed for people to stay healthy; for physicians, hospitals and allied professionals to increase care and hold down costs."

As to the second, he said, "we know that it is in the best interests of the nation's people that physicians maintain and strengthen their leadership in all matters pertaining to health care. To do so, however, we must perform at a height beyond any level achieved before. We must be worthy of the respect that goes with leaders. We must be above suspicion."

About his third point he said, "I would mention enhancement of the functioning of the medical profession by more effective communication within the profession, with the allied health professions, with influential groups of our citizenry and leaders of government on all levels."

Dr. Walter C. Bornemeier of Chicago, speaker of the House since 1966, was unanimously chosen as President-Elect of the AMA. He will be installed as the 125th President in June, 1970.

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IRS Changes Its Policy On Professional Corporations

The Internal Revenue Service announced on August 8 that it would generally treat as corporations for tax purposes organizations of doctors, lawyers and others organized under state professional association acts.

The action followed a decision not to apply to the Supreme Court for a new hearing in two recent cases which had gone against the IRS.

The decisions in both cases held that a group of doctors organized under state law was classifiable as a corporation for Federal tax purposes.

In the past two years there have been 12 court decisions against the IRS position concerning such corporations. Even after announcing the decision not to seek relief in the Supreme Court in such corporation decisions, the IRS said it reserves the right to act differently in any cases that reflect special circumstances not present in the two decisions.

AMA attorneys have pointed to the timing of IRS announcement and passage by the House of Representatives of a tax reform bill that tightens tax treatment of professional corporations. Under the bill, pension advantages of professional corporations that have elected to be taxed under Subchapter S of Tax Code would be limited to benefits not exceeding those available under HR 10 (Keogh Law). A Subchapter S corporation is one that elects not to be taxed as a corpo-

(Continued on back page)

List Recommendations Concerning New Vaccine For Rubella

The Missouri State Medical Association Committees on Maternal Welfare and Infant and Child Care held a recent meeting with representatives of the Missouri Division of Health concerning the new rubella vaccine.

The decision was made at that time to keep members of MSMA informed concerning the new vaccine. Since that meeting the federal government has licensed Merck and Company to commercially produce rubella vaccine. Two other firms are seeking such licensure.

The Division of Health reports that initial supplies of the vaccine available to official public health agencies will be restricted to children of poverty or near poverty families. Thus, the major job of eliminating rubella in children will rest with the private sector of medicine.

It must be stressed that the purpose of vaccination is not to protect the child from a mild exanthema but to protect the pregnant woman the child may come in contact with.

To better inform MSMA members about the new rubella vaccine we are publishing the follow prelicensing statement issued by the Public Health Service Advisory Committee on Immunization Practices. It was endorsed by the American Academy of Pediatrics Committee on the Control of Infectious Diseases.

PHS STATEMENT

The live, attenuated rubella virus vaccine soon to become available appears to be a highly effective immunizing agent and the first suitable method of controlling rubella.

Rubella is generally a mild illness, but if the infection is acquired by a woman in the early months of pregnancy, it poses a direct hazard to the fetus. Preventing infection of the fetus is the principal objective of rubella control. This can best be achieved by eliminating the transmission of virus among children, who are the major source of infection for susceptible pregnant women. Furthermore, the live, attenuated rubella virus vaccine is safe and protective for children, but not for pregnant women because of an undetermined risk of the vaccine virus for the fetus.

Rubella is one of the common childhood exanthems. Most cases occur in schoolage children particularly during the winter and spring. By early adulthood, approximately 80 to 90 percent of individuals in the United States have serological evidence of immunity.

Rubella is clinically variable, and its common features, such as post-auricular and sub-occipital lymphadenopathy and transient erthematous rash, are often overlooked or misdiagnosed. A mild febrile illness may not be recognizable as rubella, and moreover, subclinical infection occurs, which further decreases the reliability of clinical history.

Complications of rubella are rare in children, but in adults, particularly women, the illness is commonly accompanied by transient polyarthritis. Far more important is the frequent occurrence of fetal abnormalities when a woman acquires rubella in the first trimester of pregnancy.

RUBELLA IMMUNITY

Immunity following rubella appears to be long lasting, even after mild illness or clinically inapparent infection. The only reliable evidence of immunity is a positive serological test. However, because of the variation among reagents and technical procedures, results of serological tests should be accepted only from laboratories of recognized competency that regularly perform these tests.

At the present time, the hemagglutination-inhibition (HI) antibody determination is particularly useful for evaluating immunity. It is a rapid and sensitive procedure. The complement fixation (CF) and other serological tests are less useful.

LIVE RUBELLA VIRUS VACCINE

Live rubella virus vaccine is prepared in cell culture of avian or mammalian tissues. It is administered as a single subcutaneous injection. Although vaccines shed

(Continued on back page)

PHS Statement On New Rubella Vaccine (Cont.)

virus from the pharynx at times for 2 or more weeks after vaccination, there is no clear evidence of communicability. Approximately 95 percent of susceptible vaccines develop antibodies, but titers are lower than those observed following natural rubella infection. Recent investigations have shown that vaccination affords protection against illness following either natural exposure or artificial challenge.

Antibody levels have declined very little during the 3-year period of observation of children who were among the first to be immunized with rubella vaccine. Long-term protection is likely, but its exact duration can be established only by continued observation.

More than 30,000 susceptible children have received live rubella virus vaccine in field investigations, with almost no untoward reactions. Only rarely has transient arthralgia or evanescent rash been reported in children.

Many susceptible women have had lymphadenopathy, arthralgia, and transient arthritis beginning 2 to 4 weeks after vaccination; however, fever, rash, and other features of naturally acquired rubella have occurred less commonly. Not enough susceptible men have been vaccinated to show whether they experience comparable reactions as frequently as women.

RECOMMENDATIONS FOR VACCINE USE

Live rubella virus vaccine is recommended for boys and girls between the age of 1 year and puberty. Vaccine should not be administered to infants less than 1 year old because of possible interference from persisting maternal rubella antibody.

Children in kindergarten and the early grades of elementary school deserve initial priority for vaccination because they are commonly the major source of virus dissemination in the community. A history of rubella illness is usually not reliable enough to exclude children from immunization.

Vaccination of adolescent or adult males is of much lower priority because so few are susceptible. However, the vaccine may be useful in preventing or controlling outbreaks of rubella in circumscribed population groups.

Pregnant women should not be given live rubella virus vaccine. It is not known to what extent infection of the fetus with attenuated virus might take place following vaccination, or whether damage to the fetus could result. Therefore, routine immunization of adolescent girls and adult women should not be undertaken because of the danger of inadvertently administering vaccine before pregnancy becomes evident.

Women of child-bearing age may be considered for vaccination only when the possibility of pregnancy in the following 2 months is essentially nil; each case must be considered individually. This cautious approach to vaccinating post-pubertal females is indicated for two reasons: First, because of the theoretical risk of vaccination in pregnancy; and second, because significant congenital anomalies occur regularly in approximately 3 percent of all births, and their fortuitous appearance after vaccine had been given during pregnancy could lead to serious misinterpretation.

If vaccination of a woman of child-bearing age is contemplated, the following steps are indicated:

Optimally, the woman should be treated for susceptibility to rubella by the HI test (See Rubella Immunity).

If immune, she should be assured that vaccination is unnecessary.

If susceptible, she may be vaccinated only if she understands that it is imperative for her to avoid becoming pregnant for the following 2 months. (To insure this, a medically acceptable method for pregnancy prevention should be followed. This precaution also applies to women in the immediate post-partum period.) Additionally, she should be informed of the frequent occurrence of self-limited arthralgia and possible arthritis beginning 2 to 4 weeks after vaccination.

USE OF VACCINE AFTER EXPOSURE TO NATURAL INFECTION

There is no evidence that live rubella virus vaccine given after exposure will prevent illness. There is, however, no contraindication to vaccinating children already exposed to natural rubella. For women exposed to rubella, the concepts listed previously apply.

PRECAUTIONS IN USING LIVE RUBELLA VIRUS VACCINE

Pregnancy: Live rubella virus vaccine is contraindicated. (See Recommendations for Vaccine Use.)

Altered Immune State: Attenuated rubella virus infection might be potentiated by severe underlying diseases, such as leukemia, lymphoma, or generalized malignancy, and when resistance has been lowered by therapy with steriods, alkylating drugs, antimetabolites, or radiation. Vaccination of such patients should be avoided.

Severe Febrile Illness: Vaccination should be postponed until the patient has recovered.

Hypersensitivity of Vaccine Components: Rubella vaccine is produced in cell culture. Care should be exercised in administering vaccine to persons with known hypersensitivity to the species from which the cells were derived (indicated in the labeling). The vaccine contains a small amount of neomycin and should not be given to individuals known to be sensitive to this antibiotic.

Simultaneous administration of live rubella virus vaccine and other live virus vaccines should be deferred until results of controlled clinical investigations are available. Until then, it is recommended that rubella vaccination be separated by at least 1 month from administration of other live virus vaccines.

SURVEILLANCE

Careful surveillance of rubella infection is particularly important with an effective vaccine in use. Emphasis should be placed upon improved diagnosis and reporting of rubella, of the congenital rubella syndrome, and of complications of the disease. Competent laboratory investigation of all infants with birth defects suspected of being due to rubella is essential. It will likewise be important to observe patterns of vaccine use and determine their effectiveness.

IRS (Continued)

ration but to have its income taxed directly to shareholders as if they were partners.

The IRS announcement concerning professional corporations came after a long struggle seeking tax equality for professional people.

Details of the long struggle along with pros and cons of incorporations for physicians were published in the July 14 issue of American Medical News (formerly AMA News).

Plan to
Attend
the
112th Annual
MSMA
Meeting
April 2 - 5
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Third Annual Officer's Meet Set For 1970

Plans have been announced to hold the Third Annual County Society Officer's Conference of the Missouri State Medical Association on the weekend of January 31 and February 1, 1970 at the Ramada Inn in Jefferson City.

Dates for the meeting were set by the MSMA Council at recent meeting.

Handling arrangements for the meeting is the MSMA Public Service Committee chaired by Walter Gunn, M.D., St. Louis. Other members of the committee are Association President, Doyle C. McCraw, M.D., Bolivar; President-elect Joseph L. Fisher, M.D., St. Joseph; Thomas K. Beene, M.D., Lebanon; H. Peter Ekern, M.D., Mexico; and Grover S. Patterson, M.D., Carthage.

Chairman Gunn reports that plans are currently being formulated for the Officer's Conference.

The names of speakers and other pretinent information will be reported later.

The first annual Officer's Conference was held in 1967 in Columbia and the second was held in January of 1969 at the Ramada Inn at Jefferson City. Attendance at both meetings was good and an even bigger attendance is anticipated at the session scheduled in 1970.

WILLIAM E. HUNT, M.D., *Columbus, Ohio*

Clinical Findings and Diagnostic Procedures In Herniated Cervical and Lumbar Discs

Special Article

This easy-to-read and excellent paper on a common clinical condition offers practical information for all physicians. It was offered for publication in the 34 journals of the State Journal Group, of which MISSOURI MEDICINE is a member, by Dr. Perry R. Ayers, Editor of the *Ohio State Medical Journal*. Dr. Hunt is Professor and Chairman, Division of Neurological Surgery, Ohio State University.

DEGENERATIVE DISC CHANGES occur in every person who lives long enough. Some studies have stated flatly that x-ray evidence of disc disease can be found in everyone over the age of 50 and that such changes can be seen fairly frequently in the third decade. During the process of aging, the nucleus pulposus loses water and the elastic tissue in the annulus decreases.[1] This changes the mechanical features of the disc. The normal watery nucleus bears weight, and the annulus constrains it concentrically. With aging, the annulus, already less elastic, has to bear weight vertically and resist oblique shearing forces. If it gives way, either by thinning out or rupturing completely, the degenerating nucleus may be herniated posteriorly.

In most instances, the aging changes proceed fairly quietly or pass through mildly symptomatic phases that adjust and heal spontaneously. Sometimes, as a result of acute trauma (or of the chronic trauma called "fair wear and tear"), the process may cause serious symptoms of pain or neurologic deficit or both.

This paper is concerned with those patients whose degenerative disc disease causes them to seek medical care.

HISTORY AND CLINICAL FINDINGS

Analysis of the history begins with the patient's chief complaint, usually pain. A detailed history covering seven major points is necessary to get a picture of the problem:

1. *Onset* is often acute and may follow an episode of trauma. In the lumbar region a sudden strain may precipitate back pain, which is followed some hours later by sciatica as nerve root inflammation begins. In the cervical region, by contrast, a common onset is during sleep, in which the patient's head has been tilted over to one side. He may awake to find that he has severe pain radiating into one shoulder and arm. Numbness may be delayed, and focal weakness may be masked by pain inhibition.

On the other hand, in either cervical or lumbar disc protrusion, there may be insidious onset and steady progression of symptoms very difficult to distinguish from tumor.

2. *Progression* of the clinical syndrome is usually irregular, with intermittent attacks of varying severity. The patient with a disc protrusion, if he has not been operated on by an over-enthusiastic surgeon, has ordinarily been through several minor attacks of back pain and sciatica or stiff neck and brachialgia before he finally presents with a clear-cut clinical syndrome.

3. The *character* of the pain is more visceral than somatic. That is to say, it is "deep" and poorly localized, tends to be aching and tends to be felt more centrally than distally. Areas of numbness are best appreciated, as we will point out later, in the distal part of the dermatome but the pain due to nerve root inflammation is most felt in the shoulder or the hip, with radiation out toward the arm and forearm or the thigh and calf.

4. *Location*—The pain is of little value in identifying the involved nerve root; in con-

trast, the slightest numbness or tingling is quite reliable in identifying a dermatome.

Because of the diffuse referral of the pain of an inflamed nerve root, its character and location may be similar to that of myocardial infarction or bursitis.

5. *Remissions and Exacerbations*—The familiar aggravation of pain with cough, sneeze, straining at stool or specific movements of the spine are indications of inflamed tissue (root or ligament or both) which is affected by these movements or by pressure fluctuations in the dural sac.

In the lumbar region, remissions and exacerbations are often related to traumatic episodes, using "traumatic" in the broadest sense of that word. A number of acute attacks, precipitated by bending, lifting or twisting are the rule.

In the cervical region, by contrast, if the patient recovers from a bout of acute radiculitis from a soft disc protrusion, it is less common for him to have another attack involving the same root. Presumably, this is because a smaller volume of material is protruded and the body's repair mechanisms for shoring up the weak areas are more effective in the neck than they are in the lumbar region.

6. *Associated signs and symptoms,* such as weakness or numbness of an extremity, are the usual basis for considering the diagnosis of "disc" in a patient with a chronic low back pain or neck pain. These are the associated factors which suggest specific nerve root involvement.

7. *Response to previous therapy* is an important element in history, since disc disease often gets better, at least to some extent, with appropriate rest. Tumors of the vertebra or the spinal canal do not.

Lastly, there are some odd variations in the disc syndrome, such as painless appearance of neurologic deficit referable to the cord or cauda equina. This can lead to the incorrect diagnosis of a degenerative disease, such as multiple sclerosis or peripheral neuropathy. Some other conditions involving pain and neurologic deficit also may mimic disc disease. The most notable of these are the carpal tunnel syndrome and acute myocardial infarction, in which the diffuse referral of pain from lower cervical roots is the

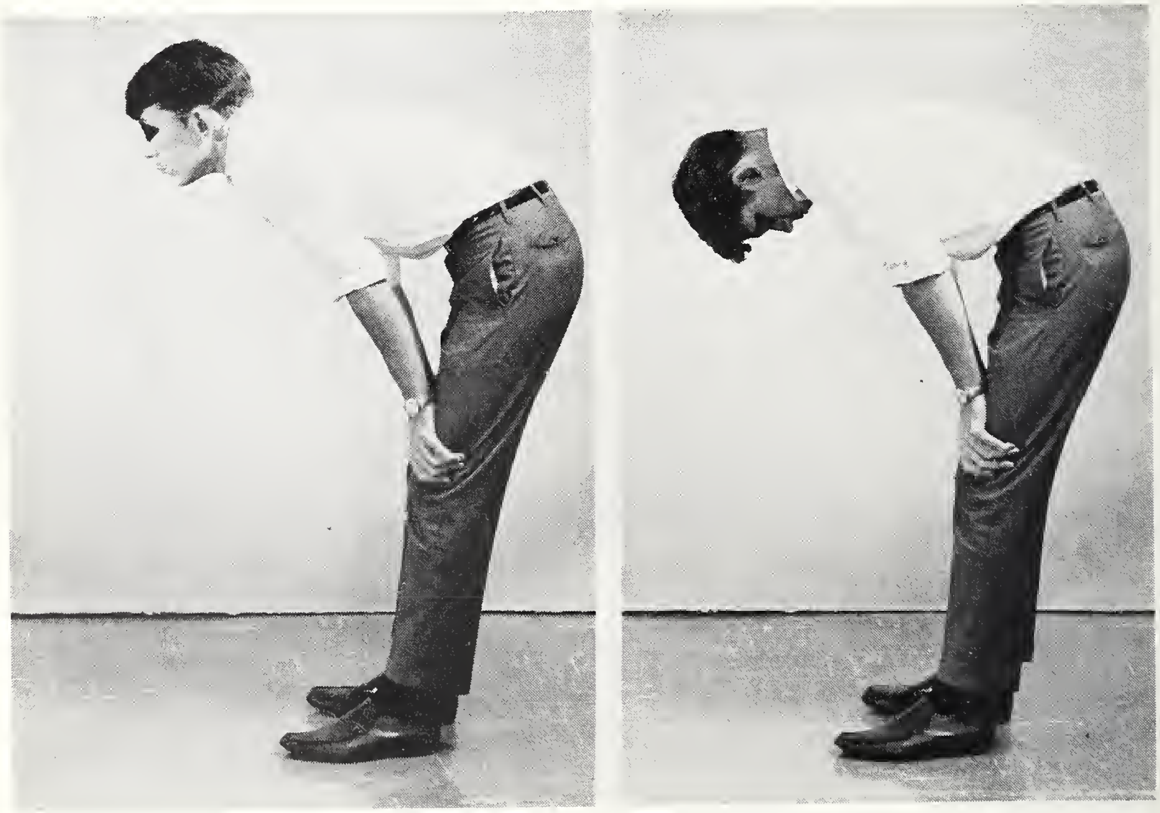

Fig. 1 "Head drop test" for identifying an inflamed nerve root.

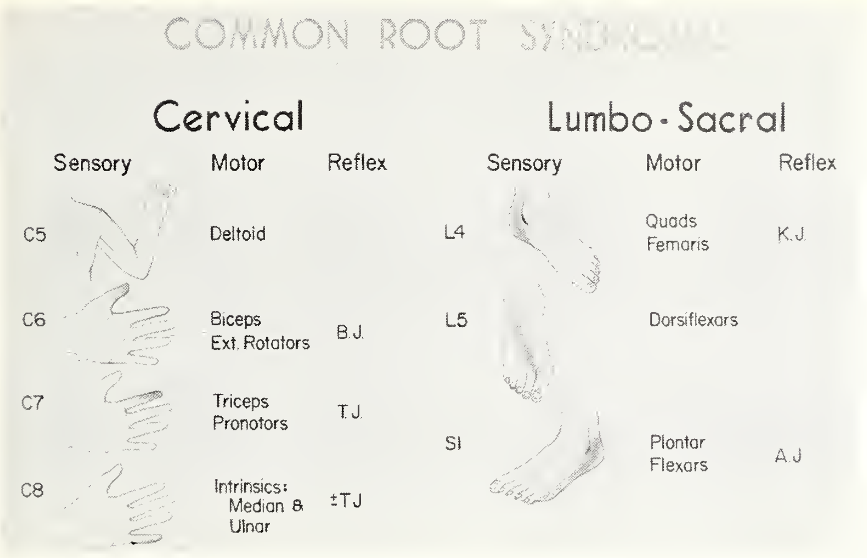

Fig. 2 Distribution of sensory, motor and reflex changes characteristic of nerve roots most commonly involved in disc disease.

common denominator. Precise neurologic evaluation solves most of these problems.

The first part of the examination, guided by the history, consists of a search for limitation of movement of the spine, loss of its normal curve or list. Subtle signs of muscle imbalance may be brought out by having the patient bend forward and then straighten up again, noting a list to one side in the process or a disturbance of the rhythm of the back muscles. Tenderness of the interspinous ligaments is significant, but severe pain on percussion suggests a destructive lesion of the vertebra rather than disc disease.

Jugular compression, which has to be applied for at least 20 seconds before the test is considered negative, may aggravate the root pain. One should squeeze the patient's neck and ask if this has any effect on the pain. He usually answers "no" at first. After eight or ten seconds, about the time the ears become cyanotic, he may become restless and then admit that the pain is getting worse. Release of jugular pressure results in immediate alleviation of the pain. This has been called Naffziger's sign.

Another useful test for identifying an inflamed nerve root is the so-called "head drop test" (Fig. 1). The patient is asked to bend forward as far as he can with his head raised in full extension. He is then told to drop his head sharply onto his chest. If there is an inflamed nerve root, this maneuver may produce an acute stab of pain radiating down the leg. It is only applicable to the lumbar region. These two signs are almost pathognomonic of nerve root inflammation.

The second part of the examination is the search for neurologic deficit. Fig. 2 shows the distribution of more obvious sensory, motor and reflex changes characteristic of the nerve roots most commonly involved in disc disease. The areas of sensory loss do not have sharp margins, and sensory loss to any modality is never complete in monoradicular syndromes. It is best to ask the patient if a given area "feels natural" to touch or pin scratch. The ball of the thumb or index finger is served by as much sensory cortex as is the entire trunk, so minor differences in the transmission of touch are quite noticeable. Slight subjective changes, therefore, are significant. There is, after all, no such thing as "objective" sensory change.

Motor responses generally tend to parallel the distribution of the sensory disturbance. The gross pattern is not very hard to remember: The thigh, the anterior compartment of the leg and the posterior compartment of the leg account for L4, L5 and S1. The deltoid, biceps, triceps and intrinsic muscles of the hand (C5, C6, C7 and C8) provide a rough survey of the lower cervical roots. Weakness of external rotation (C6) is easily detected as the examiner forces the patient's hands together. Weakness of pronation (C7) is evidenced by the tendency of the elbow to move away from the thorax when the patient attempts to pronate his hands against resistance, because he is using internal rotators of the shoulder to assist the weak pronators.

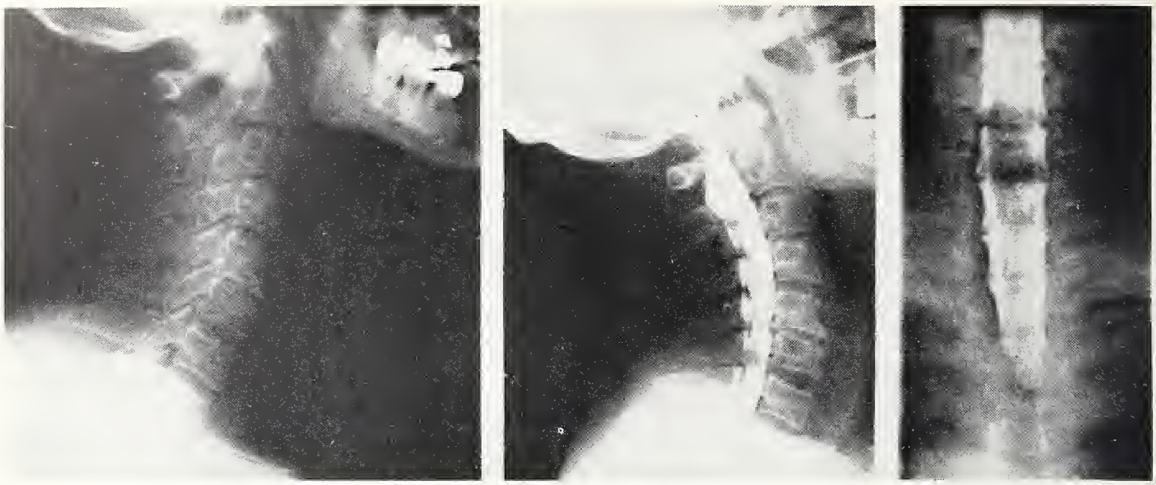

Fig. 3 Cervical myelogram of a man with severe weakness of biceps and pronators, absent triceps reflex and numbness of the tip of the right index finger.

Special Diagnostic Procedures

Plain x-ray films are useful for showing degenerative disc disease and narrowing of the interspace, but a soft, freshly herniated disc often exists at the interspace adjacent to the one that shows the greatest chronic degenerative disc disease and osteoarthritis.

Electrodiagnostic studies are useful in confirming the presence of chronic nerve root damage, i.e., damage of more than three weeks duration. Fibrillation seen with electromyography (EMG) is evidence of dead axone and means that the nerve root damage is severe. If the process seems to be progressing, this is reason to consider prompt surgical decompression. The reverse, the absence of evidence of dead axone, favors further conservative treatment if pain can be controlled. Obviously, if the pain is chiefly due to stretch of the posterior longitudinal ligament, neurologic deficit will not be found either by neurologic examination or by EMG.

In general, discography and myelography should be reserved for those patients in whom the decision to operate has already been made because of failure of conservative therapy or serious neurologic deficit. Only rarely should

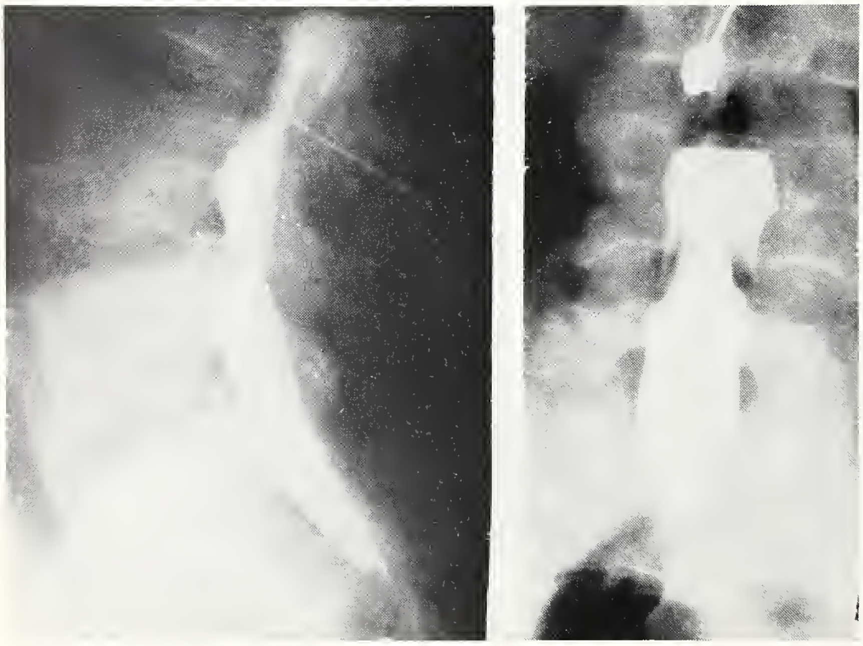

Fig. 4 Fourth lumbar interspace defect.

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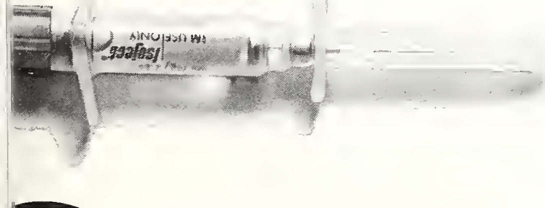

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Warnings: If renal impairment exists, even usual doses may lead to excessive systemic accumulation and possible liver toxicity. In such patients, lower than usual doses are indicated and for prolonged therapy oxytetracycline serum level determinations may be advisable.

Terramycin may form a stable calcium complex in any bone-forming tissue with no serious harmful effects reported thus far in humans.

Use of oxytetracycline during the last trimester of pregnancy, neonatal period and early childhood may cause discoloration of teeth. This effect occurs mostly during long-term use of the drug, but it has also been observed in usual short-treatment courses.

During treatment with tetracyclines, individuals susceptible to photodynamic reactions should avoid direct sunlight. Discontinue therapy at first evidence of skin discomfort.

Note: With oxytetracycline, phototoxicity is not believed to occur and photoallergy is very rare.

Precautions: Use of broad-spectrum antibiotics occasionally may result in overgrowth of nonsusceptible organisms. Where such infections occur, discontinue oxytetracycline and institute specific therapy.

As with all intramuscular preparations, Terramycin Intramuscular Solution should be injected well within the body of a relatively large muscle. *Adults:* The preferred sites are the upper outer quadrant of the buttock (i.e., gluteus maximus), or the mid-lateral thigh. *Children:* It is recommended that intramuscular injections be given preferably in the mid-lateral muscles of the thigh. In infants and small children the periphery of the upper outer quadrant of the gluteal region should be used only when necessary, such as in burn patients, in order to minimize the possibility of damage to the sciatic nerve.

The deltoid area should be used only if well developed such as in certain adults and older children, and then only with caution to avoid radial nerve injury. Intramuscular injections should not be made into the lower and mid-thirds of the upper arm. As with all intramuscular injections, aspiration is necessary to help avoid inadvertent injection into a blood vessel.

Increased intracranial pressure with bulging fontanelles has been observed occasionally in infants receiving therapeutic doses of the drug, but such signs and symptoms have disappeared rapidly on cessation of treatment with no sequelae.

Adverse Reactions: Subcutaneous and fat-layer injection may produce mild pain and induration which may be relieved by an ice pack. Very mild gastrointestinal disturbances, not requiring discontinuance of the drug, may occur occasionally. Allergic reactions, including anaphylaxis, rarely have been observed.

Dosage: *Adult:* The optimal dosage varies, depending on the type and severity of infection. Unless otherwise specified, a dose of 100 mg. every 8 to 12 hours, or a single daily dose of 250 mg. should be adequate for the treatment of most mild or moderately severe infections. In severe infections, 100 mg. every 6 to 8 hours, or 250 mg. every 12 hours may be necessary.

Serum levels obtained by the recommended dosages are comparable to those provided by the oral dosage of 1 to 2 Gm. daily in adults. Antibiotic therapy should be continued for at least 24 to 48 hours after all symptoms and fever have subsided.

In certain diseases specific courses of therapy may be recommended as a general guide. In primary and secondary syphilis for example, the daily administration of 2 Gm. oxytetracycline, orally, in divided doses for two weeks has given good results. In cases of gonococcal infection two intramuscular injections of 250 mg. each, or one intramuscular injection of 250 mg. combined with one gram given orally as a single dose, will usually suffice, but repetition of this therapy will be required in an occasional case.

In the treatment of hemolytic streptococcal infections, therapy should continue for at least 10 days to prevent development of rheumatic fever or glomerulonephritis.

In the treatment of staphylococcal infections indicated surgical procedures should be carried out in all cases.

Pediatric: A dosage of 3 mg./lb./day in two doses has been found satisfactory in the treatment of most mild to moderately severe infections. For more severe infections, higher dosages may be indicated and should be adjusted accordingly.

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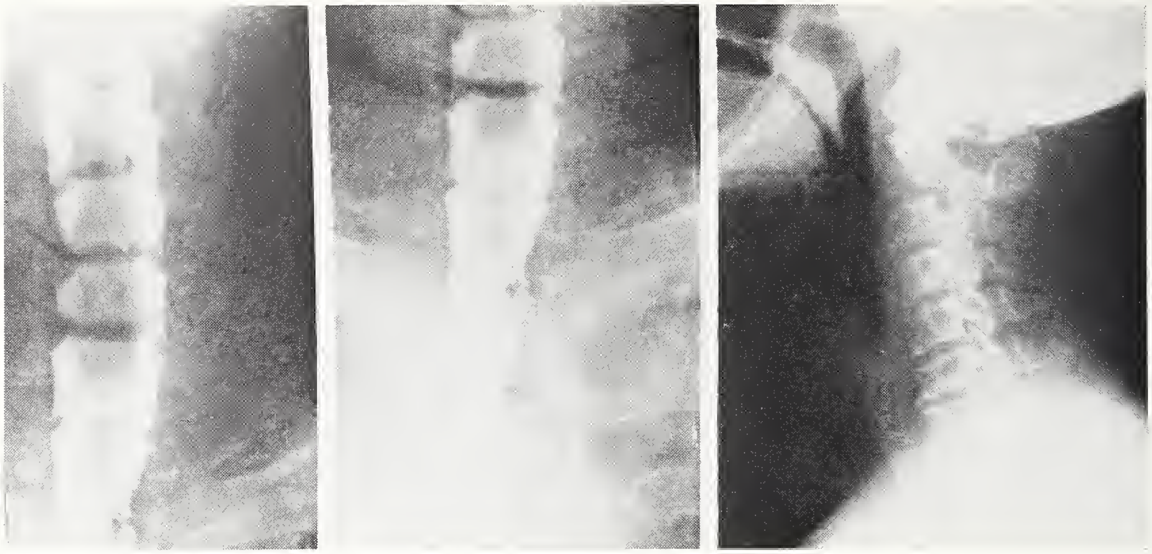

Fig. 5 Large filling defect of C6 and C7 root sleeves caused by osteophytes.

these tests be done simply to "rule out" a disc. Such procedures have their limitations, and the findings do not always correlate with the clinical picture. It is an important truism that *one does not operate upon the x-ray but upon the patient.*

Fig. 3 is the cervical myelogram of a man with severe weakness of biceps and pronators, absent triceps reflex and numbness of the tip of the right index finger. The osteophyte at C5-6 and the filling defects of C6 on both sides and C7 on the left were all irrelevant. Removal of a soft disc under C7 on the right relieved all symptoms. In Fig. 4, the fourth lumbar interspace defect was an incidental finding. It has not interfered with the patient's skiing, tennis and sailing over the past five years, in spite of occasional backache and sciatica of a few days duration. Pain, when it has occurred, has seemed to be related more to inflammation due to stretch of the posterior longitudinal ligament than to root irritation. Fig. 5 shows a large but irrelevant filling defect of C6 and C7 root sleeves caused by osteophytes. The numbness of the ulnar side of the hand and marked weakness of the intrinsic muscles of the hand on the left recovered completely following removal of a laterally placed disc protrusion involving C8.

There are, then, *no* x-ray findings, no matter how dramatic, that in themselves warrant surgical exploration in the absence of symptoms, if one is sure that he is dealing with disc disease and not tumor. There is no place for "prophylactic" surgery in a condition that may heal itself. Similarly, surgical treatment must be directed at the neurologic deficit or other known cause of pain.

Summary

1. Degenerative disc disease is ubiquitous.
2. Minor symptomatic episodes are common and need little treatment.
3. Severe attacks with radiculopathy deserve a trial of conservative therapy, if the neurologic deficit is not crippling.
4. Surgery, when unavoidable, must be directed by the clinical symptoms and neurologic deficit, not by the x-ray findings.

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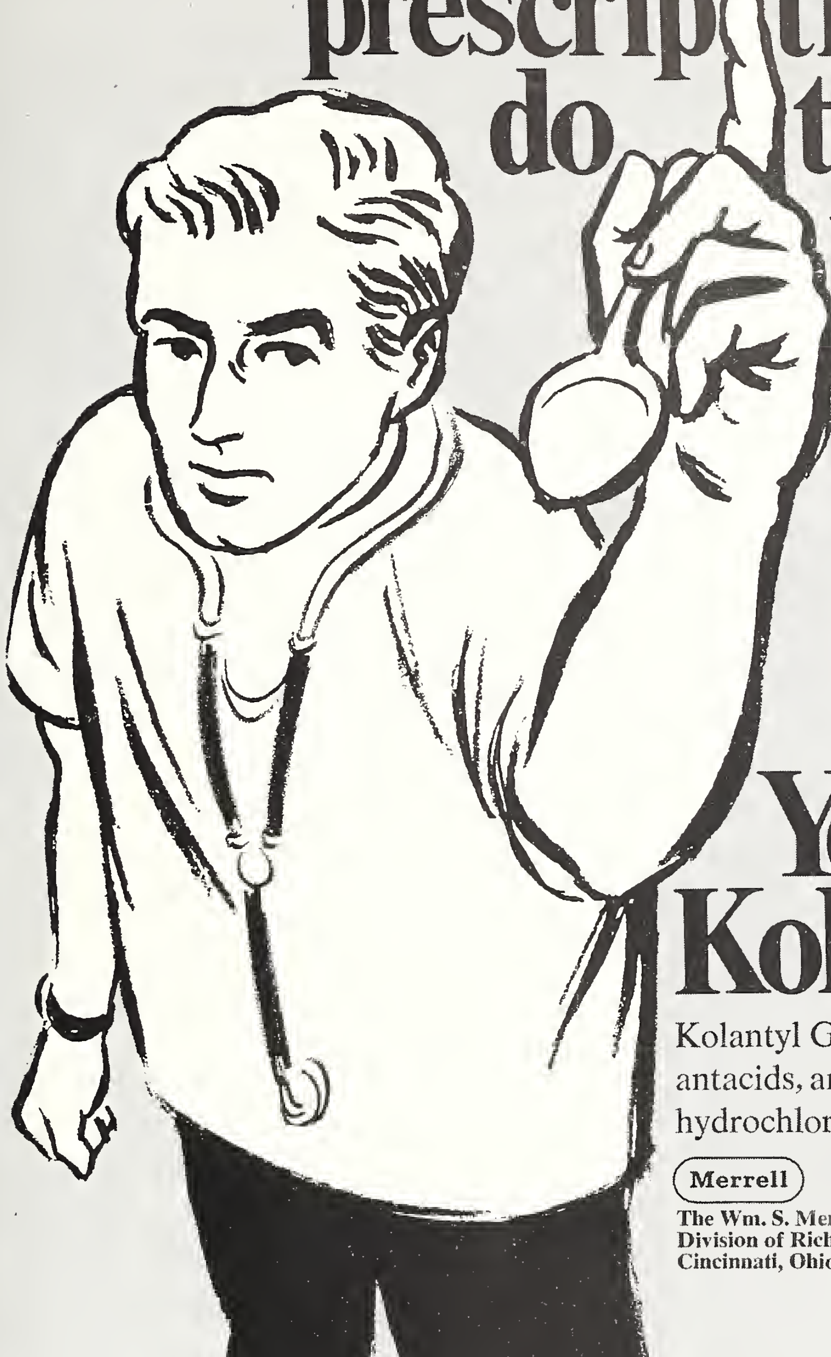
The American College of Radiology opened a Washington office for permanent government liaison on August 1. Otha W. Linton, formerly director of public relations at the ACR headquarters in Chicago, will head the capital operation. Charles Honaker, formerly of the American Medical Association, replaces Linton in the public relations post. The College office will be located in Suite 304 of the Bethesda-Bradley Building, 6900 Wisconsin Ave. in Chevy Chase, Md. The site is just northwest of the District of Columbia and convenient to the many government health agencies now located away from the center of Washington.



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Notes of interest from Here . . . . and There

Dr. Felix E. F. Larocca has accepted the appointment of Medical Director at the Child Center of Our Lady of Grace in Normandy, where he has been a senior psychiatric consultant for two years. He plans to make the Center an expanded facility to care for more than 100 children suffering from emotional disturbances, learning disorders, scholastic failure or any form of disease for which coordinated effort of psychiatric skills with special educational techniques is indicated. He also plans to extend consultation to local school resources to practice a preventive form of psychiatric care. Dr. Larocca also will be involved in teaching in the Departments of Community Medicine and Psychiatry at the St. Louis University School of Medicine.

Drs. J. F. Lutekwitte and **G. H. DeGenova** have announced the formation of The Ste. Genevieve Medical Group. Their plans include a new office complex for greater patient convenience and coverage.—**Dr. John L. Villahermosa** is now an associate of **Dr. Gilbert B. Kelley** and **Dr. Warren C. Baker** in the Kelley-Baker Clinic in Savannah. Dr. Villahermosa was on the staff at the Sisters Hospital in St. Joseph.

The newly-formed Community Emergency Medical Services Council of Springfield held its organizational meeting in July. **Dr. James R. Cook** is chairman of the council whose 30 members represent the local medical profession, hospitals, city government and civic leaders.

Dr. Donald E. Frein has closed his office in Knob Noster and is now associated with **Dr. Edward S. Jones**, **Dr. Robert L. Wheeler** and **Dr. Robert D. Henry** in Harrisonville. The closing of his office has left Knob Noster with one physician, **Dr. G. W. Grove**, who has practiced medicine in that community for more than 50 years.

Four new resident psychiatrists assumed assignments at Farmington State Hospital recently. They are **Lecnidas Theodoro, M.D.** and his wife, **Grace Theodoro, M.D.**; **Felipe Crimi, M.D.** and **Juan Fulgueria, M.D.**

The new Nevada Medical Center has opened and is receiving patients. Doctors practicing at the clinic include **Dr. James Pascoe**, general practitioner; **Dr. John Torronton**, internal medicine; **Dr. James Harms**, surgeon; and **Dr. Harry Langeluttig**, obstetrics and gynecology. A new pharmacy has leased the remaining space in the building. The center was built by a not-for-profit corporation of local men.

WASHINGTON

AMA Questions HEW Regulation

The American Medical Association questioned whether the Department of Health, Education and Welfare has the authority to issue its recent regulation limiting physicians' fees under medicaid.

"We question whether the authority granted by the Congress embraces the promulgation of this regulation," Dr. Ernest B. Howard, executive vice president of the AMA, said in a letter to HEW. "This regulation appears to reverse the roles of state and federal government established in the law itself."

The regulation limits most physicians' fees to the 75th percentile of the customary charge—the maximum customary fee of 75% of the physicians in the area.

After offering HEW the cooperation of the AMA in its efforts to contain rising medicaid costs, Dr. Howard pointed out that the "comprehensive" care goal of the program could not be achieved "without substantial funding, both state and federal."

"Moreover, it has always been recognized that the intent of Title XIX (medicaid), when adopted, was to dissolve any barriers which existed between medical care available to the medically indigent and other citizens," the AMA statement said.

"It also recognized that payment to physicians participating in the government program should be on the basis of reasonable charges, i.e., usual charges of the physician within the customary range of charges for similar services in the community, so as to assure a broad range of participation by physicians in the program and eliminate one of the obstacles to the care of patients on the same level as that provided other persons in the community. This was essentially the approach taken in the Jan. 25, 1969, regulations concerning "Reasonable Charges," in which "Customary charges which are reasonable" was established as the upper limit for payment for noninstitutional services. We believe that the January 25th pronouncement more accurately comports with the Congressional intent expressed in Section 1903(a)(30) of the Medicaid law, than does the new regulation. . . .

"In departing from this earlier standard, by establishing arbitrary limits on payments to individual practitioners, it should be recognized that the July 1 regulations may again raise a barrier to providing private care to the medically indigent.

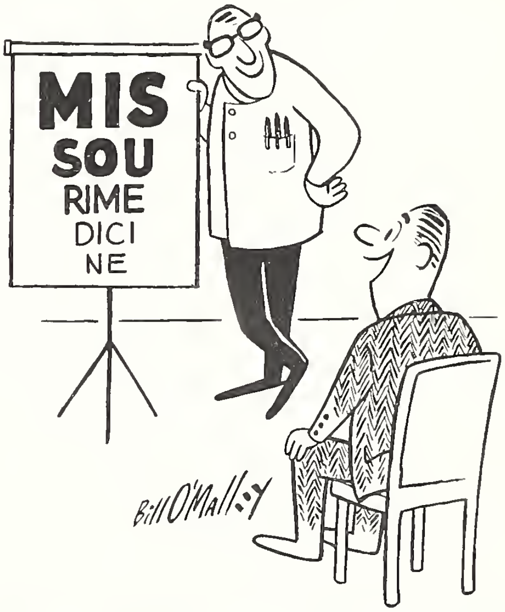
"There can be no question that any fee abuses in the program, whether by individual practitioners or other providers, must be ferreted out and eliminated. On the other hand, the true effect of the proposed regulations must be kept in proper perspective, since physicians' fees represent only approximately 11% of the costs of the medicaid program. Consequently, if the basic concern is with the total costs of the program, the remedy in our opinion, is not through regulations which restrict physicians' charges."

On the Congressional front, the medicaid law was amended to give the states some relief in fiscal difficulties arising from the program.

States now have until July 1, 1977, to submit comprehensive plans of medical care for all needy persons under medicaid. Under the original medicaid law, participating states had to come up with such a plan by July 1, 1975. But rising health care costs resulted in medicaid fiscal difficulties for so many states that Congress delayed the deadline for two years and relaxed other requirements to ease the financial bind.

One of the new amendments permits states to reduce their services under medicaid. In the past, they couldn't. But a state still cannot reduce overall medicaid spending.

Rep. Wilbur D. Mills (D., Ark.), chairman of the House Ways and Means Committee, said the changes in the law should give states some financial relief and also give Congress time to con-



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dverse Reactions: Most frequent reactions, rarely re-ing discontinuation of tybamate, include drowsiness, iness, nausea, insomnia, and euphoria. There have been w reports of skin rash, urticaria, and pruritus. Rare side cts include hyperactivity, fidgetiness, flushing, and tach-dia, suggesting excessive stimulation; also ataxia, un-diness, confusion, feeling of unreality, "panic reaction," gue, headache, paresthesias, vertigo, gastrointestinal urbances, glossitis, and dry mouth. Grand mal or petit seizures have been reported in a few hospitalized psy-ic patients receiving tybamate (up to 6000 mg. daily) ther with phenothiazines and other psychotropic its, but not with tybamate alone. Consider the possibil-of rare, serious adverse reactions such as may occur i the related drug, meprobamate. If excessive amounts ingested, gastric lavage and symptomatic therapy, in-ing central stimulants as necessary, are recommended. re prescribing, consult package circular.

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sider what long-range revisions are desirable in medicaid.

President Nixon said the nation will be confronted with a "massive" crisis in health care unless government and the private sector cooperates to hold down costs and to improve the system of delivery of medical services.

He made the statement in commenting on Health, Education and Welfare Department's "Report on the Health of the Nation's Health Care System." It carried the names of both HEW Secretary Robert H. Finch and HEW Assistant Secretary for Health and Scientific Affairs Roger O. Egeberg, M.D.

"This nation is faced with a breakdown in the delivery of health care unless immediate concerted action is taken by government and the private sector," the report said. "Expansion of private and public financing for health services has created a demand for services far in excess of the capacity of our health system to respond. The result is a crippling inflation in medical costs causing vast increases in government health expenditures for little return, raising private health insurance premiums and reducing the purchasing power of the health dollar of our citizens."

The report said the medicaid program—"badly conceived and badly organized"—was a major factor in rapidly rising health care costs by attempting "to provide medical services for the poor by pushing them into the nation's already overburdened health care system without developing the capacity in the system to serve them and without building the capability in the states to manage the program."

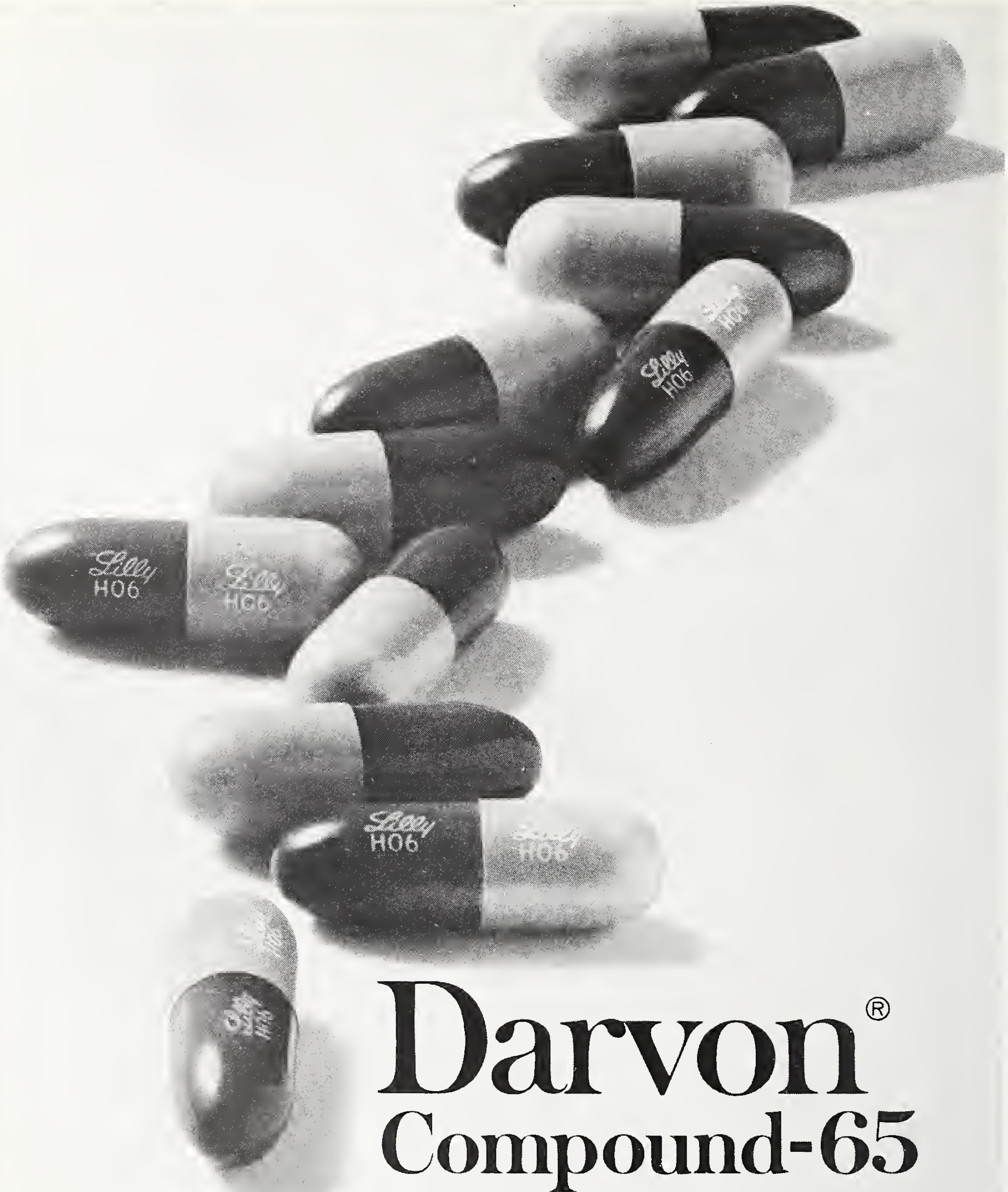
The report also said overtaxed health resources are being used wastefully and not being expanded rapidly enough. And not enough attention is being given to preventive health care, the report said.

Two advisory groups were set up: a HEW Secretary's Task Force on Medicaid and Related Programs under co-chairmen HEW Undersecretary John G. Veneman and Walter J. McNerney, president of Blue Cross, and a special industry group with David J. Mahoney, president of Norton Simon, Inc., as chairman.

Dwight L. Wilbur, M.D., then president of the American Medical Association, congratulated the Nixon Administration for taking "such a thoughtful look at the accumulated problem that has been built up in the past as a result of hurriedly enacted programs, the buildup of unattainable expectations and creation of unsound administrative operations."

"Correcting the consequences of massive disruptions and past political errors will call for the cooperation and dedication in the government and private sectors," Dr. Wilbur said. "This includes physicians, other professionals, many in related fields, hospitals, government, insurance payors and many others."

Dr. Wilbur also welcomed a call by Finch and Dr. Egeberg for discipline through the profession itself of "the very few members of the medical profession who have reportedly abused the (medicare and medicaid) programs."



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Volume 66, Number 9—September, 1969

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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ROBERT S. WEINHAUS, M.D., *St. Louis*

The Management of Obesity: Some Recent Concepts

IT IS EASY to lose sight of the usefulness of fat, a compact store of energy that the body can use to maintain itself during weeks and months of partial food deprivation. One pound of fatty tissue contains approximately 13½ oz of fat and 2½ oz of water[1] and is the equivalent of 3,500 calories. Even in Western civilization, it has not been long since large scale famines occurred—the Irish potato famine as recently as 1850. We can speculate that in man's early history, people who tended to eat somewhat more than they needed during times of plenty may have survived in greater numbers than those who had not built a store of body fat and that those survivors passed this tendency on to their children. Man is not the only animal who becomes obese when food is plentiful. Squirrels, deer and bears store fat during the summer to maintain themselves through the lean winter in a pattern that runs all through nature. Studies of animals, as well as human beings, indicate that there are hereditary tendencies to eat more than the body actually needs for energy and to store the excess as fat.[2, 3]

What once may have been an efficient survival mechanism for our ancestors in times of marginal and fluctuating food supplies now has become a hazard and a threat to survival. A child who is overweight cannot compete successfully in athletics and becomes the target of ridicule among his peers with nicknames like "fatty," "tubby" and uncomplimentary references to obese posteriors or other anatomical areas. This cruelty continues into the teens when a girl who may be no more than modestly plump is referred to by boys as "that pig." When an obese student applies to a college, the admissions committee is less likely to accept him than his leaner rival, even though his qualifications in other respects are equal.[4] In adult life, the handicaps of overweight continue to be seen in social and economic areas. One study of 110,000 people revealed that obesity was seven times more common among women of the lowest socio-economic group than among those of the highest.[5] The vice-president of one of the country's leading investment banks advised, "Do not invest in companies run by fat men."[6] There is some difference of opinion regarding the danger of minor degrees of overweight,[7–9] but the most convincing evidence indicates that the overweight person is substantially more likely than his normal-weight friend to develop diabetes, coronary occlusion, hypertension and a host of other diseases. Also, his chances of dying at any age are substantially increased.[7, 9–11]

The rule of thumb about life expectancy and weight is the following: For each five pounds above "ideal weight," life expectancy is reduced by about one year. A woman who is 5 ft 4 in tall in shoes, even of large frame and weighing as much as 148 pounds has reduced her life expectancy by about two years, at 158 pounds by four years and at 168 pounds by six years. For a man 5 ft 9 in in shoes, approximate figures are 180 pounds, a loss of two years; 190 pounds, four years; and 200 pounds, almost seven years lost. Larger amounts of weight are accompanied by disproportionately larger losses of life expectancy. Another way of stating this would be to say that an individual who is 40 years old and 30 lb overweight has raised his calculated age to 47 by his obesity.

Studies of fatty tissue suggest that enzyme systems function differently in the overweight; perhaps the excess of calories over need induces changes in the storage, utilization and mobilization mechanisms.[12, 13] Many of these changes are reversible by weight reduction. Some studies in experimental animals suggest that in a few strains a firm storage mechanism may be hereditarily fixed and does not yield readily to dieting.[14] Bray and his co-workers have found a difference between the fatty tissue of juvenile-onset obesity cases and that of several cases of obesity caused by intracranial lesions. The juvenile forms are less able to oxidize alpha-glycerol phosphate (derived from glucose) so that it tends to go directly into triglyceride synthesis.[13] Hirsch, Knittle and Salans' recent work in animals and human subjects indicates that the number of fat cells becomes fixed relatively early in life, that their number is related to the amount of food fed early in life, that obese adults have more and larger fat cells than do normal controls and that these large cells are relatively resistant to the action of insulin until they lose their excessive store of fat. In these obese people, weight loss reduces the size of the fat cells but not their number.[15–17] Perhaps when they are reduced in size, these cells emit some sort of chemical signal inducing a formerly obese person to eat more.

What help can we, as physicians, offer the obese person? We can begin by pointing out that the risk to life can be diminished and has been in many people by bringing the weight back to normal.[7, 9] We can help by dispelling many of the myths fat people often use to explain their obesity. By thorough physical and laboratory examinations, we can find those rare instances in which glandular disease and water retention are important contributory causes and can reassure the vast majority of patients that these are not the reasons for their overweight.[18]

To tell an overweight person he is fat because he eats too much is about as helpful as telling an alcoholic he is drunk because he drinks too much. When the patient tells the doctor that he gains weight while eating less than other people who do not gain, we must recognize that careful studies have verified this for children and adults.[19, 20] This is due mainly to the fact that obese people exercise less and, consequently, use less energy and require fewer calories. It is important, however, that the patient be advised that the laws of thermodynamics apply to eating: that is to say that calories taken in food either must be used for energy or stored. They cannot be destroyed. The patient must be assured that by reducing the caloric input alone and, even better, by also increasing his amount of exercise, there is a level at which he can lose weight.

Many patients come to treatment so discouraged from repeated and unsuccessful efforts at losing weight that they are convinced they have a special problem different from that of other people. It is sometimes helpful to point out that if they were marooned on a desert island without food, they, too, would starve to death. Also, despite hereditary tendencies, enzyme shifts and fat cell numbers, we only need to find a diet-activity balance that gives them fewer calories than they need to have the fat begin to disappear.

Specifically, what can be done: *The keystone always must be diet.*[10] What we are aiming for is fat loss, and the number to remember is *3,500 calories per pound of fatty tissue.* In the first few days of any diet, there is water loss, so the weight loss usually will be much greater than the actual fat loss. In a relatively inactive person who needs fewer than 2,400 calories a day, however, even total fasting could accomplish little more than a 9 oz per day fat loss. However, in total fasting and in many crash diets, there is an additional water loss and protein loss largely from muscle and the extracellular fluid compartment.[21] The result is that the weight loss is substantially greater at first than in moderate reducing diets, but the fat loss in these cases is *less* than 9 oz per day since a substantial part of the caloric deficit is made up by protein. *It is only the loss of fat in which we are interested.*

On a 1,000 calorie diet, there will be a loss of about 6 oz of fatty tissue per day or about 1½ lb per week. As body mass shrinks, fewer calories are needed. The rate of loss diminishes because for each 25 lb of excess weight loss, the body will require 100 fewer calories per day to function.[22] Even making allowance for this, some persons whose original caloric expenditure is normal will, on a stringent diet, reduce their metabolic requirements within a few days by several hundred calories a day even while maintaining apparently full activity.[23, 24] This finding may be related to the reduced basal metabolic rate (down to 50% of the normal one calorie per kilogram per hour) that occurs with undernutrition.[25] Bray speculates that the alpha-glycerol phosphate system may act as a heat (calorie) wasting mechanism in the normal subject when it is needed for this purpose. It is not as easily available to many obese patients, however, because of their inability to oxidize this intermediary product of glucose metabolism.[23] Thus, some obese people may lose very slowly, even on a 1,000 calorie diet, and may need to stay on a diet substantially lower in calories than the normal to maintain their reduced status.

My experience has shown that for people who will be carrying out their usual daily activity, a diet lower than 1,000 calories per day is difficult to accept over a long period of time and less likely to be balanced for proteins, vitamins and minerals. A 1,000-calorie diet, furthermore, is a diet that can form the backbone of a lifelong dietary pattern that needs to be established, with foods being added to the point of stabilizing the weight at the end of the weight-losing period. On the other hand, my experience with diets indicates that if the patient finds that eating somewhat more or somewhat less than 1,000 calories makes it possible for him to go on the kind of prolonged reduction program that he needs, if substituting fat for carbohydrate is helpful to him or if skipping certain meals or going on total fasts one day a week is helpful, then *it is more important to find a program that works for that individual than it is to follow any preconceived notion about the kind of diet* except that proteins, vitamins and minerals must be adequate.

Although total fasts of long duration have been at least modestly effective, they must be carried out under hospital conditions, require a great deal of the physician's attention in either encouragement or formal psychotherapy[26, 27] and, unfortunately, are accompanied by important losses of muscle mass, hyperuricemia, weakness and other complications including personality change in about one third of the patients.[27, 28] Bowel bypass operations to short circuit food so that it is not absorbed may cause lethal complications, substantial malnutrition, electrolyte deficiencies and other abnormalities.[29, 30] These drastic procedures generally are considered only when there is a major threat to life.

Inheritance of the once useful ability to become obese now has become a medical and socioeconomic detriment. The author points out, however, that diet and exercise usually will not be applied by the overweight patient unless both he and his doctor understand his life and the part food plays in it. The discovery and realization that overeating may represent unrecognized grief, a way of isolating oneself from new experiences, a defense against feelings of inadequacy and other maladjusted attitudes may help the patient to control his formerly uncontrollable eating habits. This paper is based upon a panel presentation by the author before the St. Louis Medical Society. Dr. Weinhaus is from the Department of Medicine, The Jewish Hospital at St. Louis and in the private practice of medicine.

Various medications have been used. The most favored are the amphetamines. These sometimes are helpful in reducing hunger by action on that part of the brain, the ventromedial hypothalamic nucleus, which controls the feeling of being satiated. This class of drugs, unfortunately, may overstimulate the nervous system, the heart and the blood vessels. The least overstimulating of the anorexiant drugs seem to be diethylpropion (Tenuate®, Tepanil®) and chlorphentermine (Presate®). Their effectiveness is often lost after two or three months, and overuse can lead to habituation. Their chief function, therefore, is to help the patient get started on what must be a lifelong program. For this, they are often helpful. Methylcellulose is a substance which, with water, swells up in the stomach creating for some patients a feeling of satiety with less food. The same or better results can be accomplished by eating low caloric salads and vegetables.

Tranquillizers and sedatives should be used only for their usual medical indications and not routinely in weight reduction. The antidiabetic biguanide drugs, phenethylbiguanide (phenformin) and dimethylbiguanide (metformin), have been reported to be helpful in certain prediabetic and diabetic obese patients.[31, 32] Diuretics taken by mouth or by injection increase the loss of water and salt. These should *not be used* in simple obesity but only for *usual medical indications* of excessive fluid retention. Several other drugs which have valuable places in the treatment of specific diseases should not be used in weight reduction because their effectiveness depends upon using dosages that can have dangerous consequences. Among these are digitalis, which produces loss of appetite as a toxic effect.

Thyroid preparations, which when used in excess are potentially dangerous metabolic stimulants, are not to be used routinely. However, on an experimental basis, triiodothyronine has been used successfully in a group of obese patients with thyroid antibodies, abnormal thyroxine transport and certain angiopathies studied by Perlstein, Premachandra and Blumenthal.[33, 34] Other investigators have reported some preliminary partial success with the cautious use of large doses (several times the physiologic range) of thyroid extract (up to 20 grains per day),[35] thyroxine (up to 2,400 micrograms per day)[36] and triiodothyronine (up to 500 micrograms per day).[23, 36] However, weight tended to be regained when the large dosage was discontinued.[35] Some preparations such as chorionic gonadotropin are inert.

Exercise is valuable not only for obese people but for everyone who does not have some medical contraindication to increased activity.[37] Exercise that is not pleasant, however, will not be used regularly. Therefore, it is important that the patient find something *he* likes, whether it is walking, swimming with other people, golf or whatever he enjoys. Even walking for one hour a day will use up almost 200 additional calories. This may not sound like much, but in a year it amounts to 21 lb of weight loss. Group reducing sometimes is helpful, as long as the patient's physician examines him and approves the diet used as adequate from a nutritional standpoint and not contraindicated by special disease considerations.

For the person who has been in the normal range of weight for most of his life and has gained a few pounds, a diet list and brief discussion usually are sufficient to help him reestablish control. For the patient who has been substantially overweight for a long time or who shows steady weight gain, the problem is more serious.

If the patient is being pushed toward overeating and obesity by hereditary or biochemical forces that are not reversible at our present state of knowledge, then the blocking of these drives by conscious self-denial would produce a state of nervous tension. Even if the drive is instinctive, partial blocking of the drive might be tolerable. After all, in order to live in a civilized society, we have learned to control many of our instinctive drives; this is the essence of civilization. If a man sees a girl he finds sexually attractive, he doesn't just reach out and grab her. If an obese person has, in addition to instinctive and biochemical drives, psychological and family patterns that push him toward overeating, he must stand additional tensions in blocking them. The combination may be simply more than he can tolerate, and the sum total of these factors may explain why the cure rate for markedly obese patients is reported as 5% or less.[10]

I have never seen a significantly overweight patient who did not have some of these psychological or family patterns. It is here that the physician may be able to help most by sitting and talking with the patient so that both doctor and patient may try to understand what is going on.

Fat people often are very unhappy beneath an outward show of not caring or even jollity. The cynical folk-saying, "The fat man had better be jolly, he can't fight and he can't run," is echoed by the fat men who tell me how sensitive they are about their weight and yet take their friends' remarks with outward humor. Overeating is not associated with true hunger or hunger contractions; in fact, there is often very little pleasure in overeating. One patient wretchedly confessed, "Sometimes when I stand at the icebox gorging myself on cold mashed potatoes—you *know* how they taste—I hate myself."

The problem an obese person faces in giving up overeating is in at least one way far more difficult than that of a person who wants to give up smoking or alcohol. The person who smokes or drinks can handle the problem by an act of renunciation and never again have to stop himself from the maximum temptation—to begin again and then stop short. The obese person, even after a total fast, eventually has to expose himself to this intense temptation several times a day and to control it.

The overweight person deserves every bit of help we can give him in his efforts; lectures, condemnation, exhortation to have more will power can only result in increasing his own self condemnation. *The process of helping him is to understand him as a person and to understand the part that food plays in his life.* A number of patients have candidly stated in more or less the same words, "The only pleasure I get in life is food; the way I feel, I would rather die than give up eating." Certainly, if someone feels like this, we must try to understand why life seems so empty of other gratifications and help him try to discover pleasures that he may substitute for the food he overeats.

Earlier, I mentioned times of starvation in our own society. We must remember that in stories of families who lived through difficult times, even as late as the 1930's, one of the most touching aspects is that of parents who went hungry in order to feed their children. Cultural attitudes, such as it is good to eat and that feeding children is a way of showing love for them, set patterns early in childhood. One overweight young woman was able to realize eventually that her mother had wanted her to eat a lot and that she (the patient) felt anxious now if she dieted. She finally recognized that when she dieted she felt guilty, as she said, "As if I am injuring my mother." Even after this, when she visited home, she always regained part of her lost weight in order to give her mother the pleasure of overfeeding her.

Another patient had a stern father who was able to demonstrate his love in only two ways —he brought home good things to eat and gave his son money to go to the show. After this son grew up and his father died, he was not consciously aware of how much he missed his father's steadiness and firmness, but he ate incessantly and did not get enough sleep because of staying up watching television. His overeating was an attempt to feel as he had felt when his father brought him good things to eat and was still there for him to rely upon.

In this way, we can see that overweight can be the concrete manifestation of an unresolved grief. This wall of soft concrete that we call fat can act as a fortress against experiences that are potentially more satisfying but are new and strange and, therefore, cause anxiety. Several unmarried girls as they lost weight were temporarily concerned as they became sexually attractive to men. The massivity of fat can be felt as a kind of emblem of powerful distinction. One man admitted that he got a good deal of satisfaction out of being so fat because, as he said, "When I walk into a room, everyone knows a *big* man has come in." When these attitudes become known to the patient and the doctor as they work together, the patient may be able to give up some of his previously unrecognized ideas and be less driven to eat excessively.

The physician can have an important and effective educational role in prevention of obesity: one of the most helpful things a physician may do is to help certain mothers be comfortable about not overfeeding their children. Simple education and encouragement sometimes combined with brief office treatment often are enough to help hold the line in a patient who has shown a slow weight gain, but has no obvious emotional problems.

A sudden weight gain is, in my experience, usually associated with a life problem and often masks a depression. The therapeutic problem is not the obesity: the obesity is only a symptom. Such patients can get very much more psychologically disturbed if the physician sees or listens only to the complaint of obesity and treats with diet and medication instead of counseling.[27, 38, 39]

Weight reduction usually should be postponed until the patient has the requisite psychological strength and self-understanding. If the treating physician does not have the time and energy or has not been trained in counseling skills, then appropriate referral for psychological help is indicated. In my experience, the massively obese patient has massive psychological problems; weight reduction without psychotherapy almost always will be unsuccessful over the long range and is psychologically hazardous over the short range, despite the patient's often intense demand for diet and medicine as a solution to all his problems. Even if the patient is not consciously aware of his emotional distress and his use of overeating and obesity as a defense against these feelings and cannot be gently guided towards psychotherapy, it is helpful if the physician can accept the patient as a person who has an illness that may not be helped by current methods.

Although diet and exercise always will be basic to any program of weight reduction, they can be used most effectively when the patient understands what has caused his overweight. Ideally then, the patient, with the doctor's help, replaces the mixed pleasures of overeating with the far fuller pleasures of self-knowledge and health.

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Cirrhosis of the Liver in Infants and Children

Cirrhosis of the liver, although uncommon during infancy and childhood in the United States, is not infrequent in other parts of the world.[1, 2] Most pediatric centers in this country, however, have followed a significant number of cirrhotic patients over a period of years.[3] From these studies, it is apparent that cirrhosis in infancy and childhood is not a separate entity but represents a portion of a broad spectrum with certain age-related idiosyncrasies, such as congenital biliary atresia and the inborn errors of metabolism.

Materials and Methods

Classifications of cirrhosis are as numerous as the investigators who write about liver disease. None seems to be entirely satisfactory. The list presented in Table 1 does not represent a classification, but only an attempt to categorize the cases in our study, as follows: *Cirrhosis associated with biliary obstruction*—Biliary cirrhosis is associated with prolonged obstruction of the biliary tree. This may be due to aberrant embryonic development[4] or subsequent obstruction of the biliary passages by a variety of processes;[5] *cirrhosis associated with hepatitis*—Cirrhosis of the liver occurring after attacks of acute hepatitis is well documented.[6] Indeed, serial studies have demonstrated actual progression from acute hepatitis into post necrotic cirrhosis;[7] *cirrhosis associated with congestive heart failure*—Cirrhosis complicating the severe prolonged chronic venous congestion of intractable congestive heart failure is a well established, but infrequent, entity;[8] *cirrhosis associated with syphilis*—Although uncommon, syphilis affecting the liver is by no means extinct, either as a congenital infection or a hepar lobatum.[9]

TABLE 1

CIRRHOSIS OF THE LIVER IN INFANTS AND CHILDREN AT THE CHILDREN'S MERCY HOSPITAL AND ST. LUKE'S HOSPITAL, 1943-1967

Cirrhosis associated with biliary obstruction		24
Congenital atresia	19	
Extraluminal obstruction and atypical obstruction	5	
Cirrhosis associated with hepatitis		5
Cirrhosis associated with congestive heart failure		3
Cirrhosis associated with syphilis		3
Unclassified		3
TOTAL		38

This study includes all of the cases of cirrhosis of the liver in the files of the Department of Pathology of The Children's Mercy Hospital and St. Luke's Hospital in Kansas City from 1943 through 1967. The clinical records, operative reports, autopsy protocols, histological and, sometimes, the gross material were reviewed for each case. Tissues were fixed in neutral 10% formaldehyde solution and routinely stained with hematoxylin and eosin. Gomori's trichrome, Mallory's Aniline Blue, PAS, Wilder's reticulum and Warthin-Starry stains were used for selected cases. All the slides were examined by light microscopy by both authors and classified according to diagnostic guidelines previously described.[10, 11] The clinical findings were used to assign the cases to the categories listed above.

Congenital Extrahepatic Obstruction (Table 2)

There was no consistent pattern of sex or race in the cases associated with extrahepatic biliary atresia. Neonatal jaundice and hepatomegaly were uniformly the initial signs. Serum bilirubin determinations showed levels above 10 mg/100 cc in most instances with one half being the direct reacting fraction. Serum glutamic oxalcetic transaminase (SGOT) ranged between 200 and 600 Karmen (K) units. Alkaline phosphatase levels were between 15-26 units/100 cc, King-Armstrong method (K-A). Total serum proteins were not elevated, but a reversed albumin/globulin ratio was found in later stages. Bleeding complications were not prominent despite prolonged prothrombin times and clotting times.

The configuration of the extrahepatic ducts and the distribution observed is presented in

TABLE 2
CONGENITAL BILIARY OBSTRUCTION

Patient	*Sex*	*Race*	*Bilirubin* *Total* *mg%*	*Bilirubin* *Direct* *mg%*	*Alkaline Phosphatase (K-A) Units*	*SGOT (K) Units*	*Albumin* *Grams %*	*Globulin* *Grams %*	*Type of Atresia (Fig. 1)*	*Comment Age in Years*
# 1	M	W	10.5	7.2	17.2	510	2.04	3.66	C	Died age 5 6/12—Autopsy
# 2	M	W	10.5	6.5	..	100	TOTAL	6.2	A	Living and well, age 1
# 3	F	W	..		..	..	..		B	Died age 4—Autopsy
# 4	M	N	15.6	8.5	..	220	3.6	2.0	B	Died age 1 4/12—Autopsy
# 5	M	W	20.5	11.4	14.2	25	3.4	2.3	A	Lost to follow-up, age 1
# 6	F	N	8.2	8.2	..	98		..	A	Living and well, age 4—Biopsy Diagnosis hepatitis, age 1/12
# 7	F	W	26.0	12.6		..		..	A	Died age 1 3/12
# 8	M	W	11.5	8.1	29.9	220	2.9	4.0	C	Died age 2 3/12
# 9	M	W	15.8	12.2		220		..	B	Lost to follow-up, age 1 4/12
# 10	F	N	22.3	12.5	17.8	700	..	..	A	Died age 1—Autopsy
# 11	M	N	20.0	4.0	..	..	..	..	D	Died age 3/12—Autopsy
# 12	M	N	8.5	1.7	21.6		1.9	4.1	C	Died age 2 6/12—Autopsy
# 13	M	W	20.7	3.5	28.2		3.1	3.8	A	Lost to follow-up, age 8/12. Had female twin not affected
# 14	F	W	24.8	11.3	4.1	..	..	..	A	Died age 9/12—Autopsy
# 15	F	W			..	..	..		A	Died age 2/12—Autopsy
# 16	M	N	..		..	..	..	..	A	Died age 1/12—Autopsy
# 17	M	W				..			A	Died age 2—Autopsy
# 18	M	..	4.7						C	Died age 6/12—Autopsy
# 19	M								B	Died age 5/12—Autopsy

TABLE 3
ACQUIRED EXTRAHEPATIC BILIARY OBSTRUCTION

Patient	*Sex*	*Race*	*Age at Onset*	*Bilirubin* *Total* *mg%*	*Bilirubin* *Direct* *mg%*	*Alkaline Phosphatase (K-A Units)*	*SGOT (K) Units*	*Diagnosis*	*Comments—Age in Years*
# 20	F	W	1 Yr	10.0	9.0	21.0	180	Retroperitoneal fibrosis	Last seen at age five—doing well following cholecystoduodenostomy
# 21	F	W	3/12	11.6	..	..	..	Retroperitoneal Sclerosing hemangioma	Died at age 7/12—Autopsy
# 22	F	W	8/12	..	..	..	..	Sclerosing cholangitis	Died at age 8/12—Autopsy Also had myocarditis
# 23	F	W	2 Yr	19.8	9.3	7.0	200	Hepatic duct atresia at surgery	Lost to follow-up at age 2 6/12—Lipids 4753 mgm %
# 24	M	W	6/12	12.2	6.0	23.6		Letterer-Siwe's disease with common duct obstruction	Died at age two years—Autopsy

A study of all cases of cirrhosis of the liver in the files of the Departments of Pathology at The Children's Mercy Hospital and St. Luke's Hospital. The clinical findings were used to assign the cases to the categories of cirrhosis associated with biliary obstruction, with hepatitis, with congestive heart failure or with syphilis. Dr. Jones is from the Department of Pathology at both hospitals. Dr. O'Kell is Attending Pathologist at The Children's Mercy Hospital and Associate Pathologist at St. Luke's Hospital.

Fig. 1. Exploratory laparotomy and biopsy were done in most cases. Follow-up data are complete in all but five cases. Three patients were lost to followup at one year of age and two were alive at one and four years of age with minimal clinical hepatic disease. The longest known survival was five and one half years.

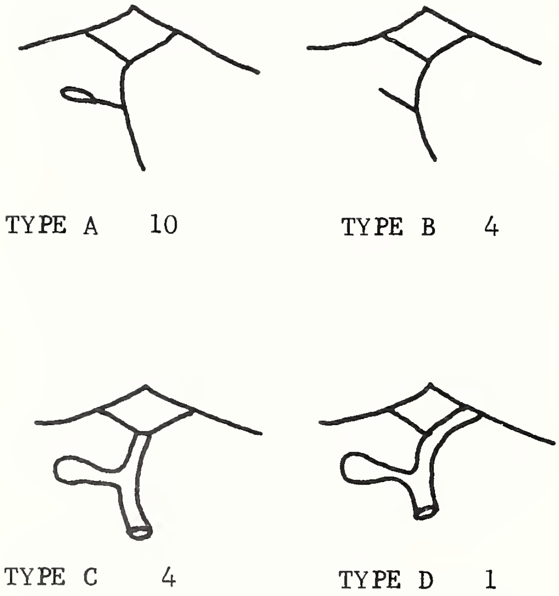

Fig. 1

The progression of the biliary cirrhosis correlated well, in general, with the duration of the disease and the histology paralleled previous descriptions.[12] The earliest findings were periportal fibroblastic proliferation and ductular and canalicular bile plugging mostly at the periphery of the lobules. Continued fibroblastic activity led to linkage of portal areas with irregular lobulation and regeneration. Early in the disease, typical bile ducts were prominent, but in later cases bile ducts were found infrequently.

Acquired Extrahepatic Obstruction (Table 3)

These patients presented with jaundice and hepatomegaly at ages three months to 15 months. All patients were white and only one was a boy. Laboratory findings were similar to those found in the congenital cases, with serum bilirubin values of 10 mg/100 cc to 20 mg/100 cc with one half or less being the direct reacting fraction, SGOT of less than 200 (K) units and 21-70 units/100 cc of alkaline phosphatase.

Patient # 23 was found at surgery to have atretic hepatic ducts indistinguishable from the congenital cases. She was two years old and developing normally when jaundice and hepatosplenomegaly occurred. Laboratory findings as noted in the tables were striking with protein abnormalities, hyperlipidemia and an alkaline phosphatase of 70 units/100 cc (K-A). The hepatic histology was characteristic of early biliary cirrhosis at laparotomy. The patient was lost to follow up one year after diagnosis and was fairly well at that time.

The youngest patient (# 21) of this group was three months old when jaundice and hepatomegaly developed. She died at age of six months, and a sclerosing retroperitoneal hemangioma obstructing the common bile duct was found at autopsy. Common bile duct obstruction also was found at autopsy in Patient # 24, an 18-month-old boy with Letterer-Siwe's disease. The duct obstruction was caused by a mass of enlarged lymph nodes and fibrous tissue. Patient # 20 was seen at age four after a one-year history of jaundice. At operation, a dense retroperitoneal and pancreatic fibrotic mass was found; the bile ducts were greatly dilated. Histologic study of the surgical specimens showed biliary cirrhosis and only fibrous tissue in the retroperitoneal mass. A cholecystoduodenostomy was performed and, at follow up five years later, she had no hepatic or biliary signs or symptoms. A similar case has been reported recently.[13]

Patient # 22 was not typical of this group. She had intermittent diarrhea beginning at age four months and jaundice at eight months. She died at age eight months; no laboratory data were available. At autopsy, the extrahepatic biliary tree was normal, but evidence of infection was widespread. She had myocarditis and pneumonitis with no specific features. The liver showed fibroblastic proliferation in portal areas with flattened ductal epithelium and a lymphocytic

TABLE 4
POSTHEPATITIS

Patient	*Sex*	*Race*	*Age at Onset*	*Bilirubin Total mg%*	*Bilirubin Direct mg%*	*Alkaline Phosphatase (K-A Units)*	*SGOT (K) Units*	*Diagnosis*	*Comments—Age in Years*
# 25	F	W	13 Yr	14.6	7.1	5.9		Posthepatitic cirrhosis	Died at age 14—Autopsy
# 26	F	W	8 Yr	10.0	10.0		. .	Postnecrotic cirrhosis	Albumin 1.4, Globulin 4.1 Died at age nine—Autopsy
# 27	F	W	7 6/12					Posthepatitic cirrhosis	Died at age 8 6/12—Autopsy
# 28	F	W	13 Yr	14.1	6.8	17.2		Posthepatitic cirrhosis	Died at age 14—Autopsy
# 29	M	W	7 6/12	0.4		8.6	114	Posthepatitic cirrhosis	Living and well at age nine

infiltration. Connective tissue stains showed prominent fibrosis connecting adjacent portal areas and producing an accentuated lobular pattern. The changes were felt to be most likely sclerosing cholangitis with early biliary cirrhosis.

Posthepatitis (Table 4)

The boy with posthepatitic cirrhosis presented a benign course and was asymptomatic within a two-year follow up. All five patients presented characteristic histories of hepatitis with a recurrent or progressive course for eight months to eight years. The laboratory abnormalities were notably less severe in the boy. Grossly, the livers presented fine and coarse nodules. The earliest histological finding was periportal reticulum collapse associated with focal hepatic cell degeneration and a few portal lymphocytes. Plasma cells were not prominent. Later stages of the disease presented findings of postnecrotic or posthepatitic cirrhosis with regenerating nodules, piecemeal necrosis and bile canalicular plugging.

The histology did not suggest plasma cell hepatitis.[14] Fatty changes, alcoholic hyaline and nuclear changes as described in infantile cirrhosis in India were not present.[2]

Cardiac Cirrhosis (Table 5)

Three cases of cardiac cirrhosis were seen at autopsy before 1950. All three patients were white children, ages ten to 16. One was a boy. The primary disease in each was rheumatic heart disease of long standing. No hepatic symptoms were present and no significant laboratory data were obtained. Regeneration was not prominent in the livers at autopsy. Fibrous bands connecting central zones and acute cellular degeneration were present. Other findings were secondary to advanced rheumatic heart disease.

Congenital Syphilis (Table 6)

Three cases were seen at autopsy; all patients were white children. One premature girl weighing 876 gm had hepatomegaly and the constellation of signs suggesting 13-15 Trisomy. Hepatomegaly also was present in the remaining two. Bilirubin levels of 4.5 mg/100 cc were found with more than 50% constituting the indirect fraction. Total proteins were not elevated, but the albumin/globulin ratios were reversed. A granulocytic leukemoid reaction occurred in one case. The hepatic pathology of Case # 33 was characteristic of hepar lobatum with gross nodularity and broad bands of fibrosis

TABLE 5

CARDIAC CIRRHOSIS

Patient	*Age in Years*	*Sex*	*Race*	*Diagnosis*	*Comments*
# 30	10	M		Rheumatic heart disease	Autopsy
# 31	12	F	W	Rheumatic heart disease for two years	Autopsy—pericarditis
# 32	16	F	W	Rheumatic heart disease	Autopsy

TABLE 6

SYPHILITIC CIRRHOSIS

Patient	*Age in Years*	*Sex*	*Race*	*Diagnosis at Autopsy*	*Comments*
# 33	15	M	W	Hepar lobatum	Hepatomegaly for ten years; Bilirubin 4.3 mg%, Direct 1.2 mg%; Alkaline Phosphatase 10.8 K-A; Albumin 2.0 gm%; Globulin 3.8 gm%—Autopsy
# 34	Newborn	F	W	Congenital lues	876 gram birthweight; Probably 13-15 Trisomy
# 35	1/12	M	W	Congenital lues	Anemia, ascites, hepatomegaly; Leukemoid reaction; Bilirubin 4.6 mg%, Direct 1.7 mg%; Albumin 1.85 gm%; Globulin 2.00 gm%

and irregular regenerating nodules microscopically. The two neonates presented diffuse fibrosis in portal areas and surrounding individual hepatic cells. Many spirochetes were demonstrated in the liver of Patient # 35.

Miscellaneous (Table 7)

Three cases were unclassifiable due to inadequate clinical and pathological data. One premature infant died at one hour of age following labor complicated by face presentation and cord prolapse. Multiple congenital anomalies were found involving the skull, central nervous system and skeleton. He also had a webbed neck and ambiguous genitalia. The anomalies did not suggest any characteristic syndrome known to us. The liver was normal in size, with fine nodularity. Histologically, early biliary cirrhosis was present. The extrahepatic biliary tree was normal at autopsy.

The other two cases closely paralleled each other. Both children were white; a boy age six months and a girl age eight months. The clinical presentation was neonatal jaundice and hepatomegaly, with slight functional impairment. At autopsy, livers of both patients were yellow with fine nodularity and normal extrahepatic biliary ducts. The histology of the livers in both cases confirmed the presence of large amounts of fat, mostly within parenchymal cells. Regenerating nodules were predominant and bile plugging was not seen. The fibrous trabeculae were delicate and portal in location. Large numbers of typical-appearing bile ducts were found in the fibrous tissue. The histology suggested galactose disease,[15] but a similar cirrhotic pattern has been described in other metabolic diseases.[16] These cases were studied in 1948 and 1949, but further study was not undertaken at that time.

TABLE 7

UNCLASSIFIED—SEE TEXT

Patient	*Age in Years*	*Sex*	*Race*	*Diagnosis at Autopsy*	*Comments*
# 36	Newborn	M	W	Early biliary cirrhosis	Multiple congenital anomalies
# 37	8/12	F	W	Fatty nutritional cirrhosis	Normal serum proteins
# 38	6/12	M	W	Fatty nutritional cirrhosis	Albumin 3.2 gm%; Globulin 3.5 gm%

Discussion

Analysis of our cases shows the expected idiosyncrasies of the pediatric age group. The predominance of cirrhosis associated with biliary atresia is similar to previous reports from centers in the United States.[3, 17, 18] Our cases include surgical biopsies which may have weighted the distribution in favor of biliary tract disease. Significant hepatomegaly and functional impairment were universal in the patients followed to autopsy.

Biliary obstruction beyond the neonatal period was not rare in our cases. The etiology of the obstruction was diverse, and no consistent pattern of clinical or laboratory findings was ascertained. The underlying disease determined the prognosis in these cases. The histopathology was in no way different from that described in adults with biliary obstruction.

The disease process labelled intrahepatic biliary atresia was not found in our cases. Typical bile ducts were numerous in the early cases of extrahepatic atresia, but, as the cirrhosis progressed, the ducts became distorted and inconspicuous. This phenomenon has been previously proposed as the etiology of intrahepatic atresia.[19] Our cases support this explanation. Clinical diagnosed hepatitis progressed to fatal cirrhosis in four adolescent girls. The boy with posthepatitic cirrhosis followed an apparently benign course. Esophageal varices did occur in Patient # 26. The histology again mimicked the corresponding disease in adults.

Cirrhosis due to syphilis has been found sporadically and conformed to previously recognized categories of congenital inflammatory fibrosis and more chronic hepar lobatum. Cirrhosis following chronic congestive cardiac failure was found in only three children with rheumatic heart disease. This entity has not been encountered since 1950 in our study. Liver impairment was not prominent in these cases. The infrequency of cardiac cirrhosis in recent years may reflect improving surgical and medical management for rheumatic heart disease.

One case was associated with characteristic stigmata of Trisomy 13-15 and multiple anomalies were present in one case. Two cases suggested the hepatic component of metabolic disease but the association could not be proved. The present availability of karyotyping and metabolic study capabilities may allow more precise diagnoses in cases of these types. We did not find evidence of congenital hepatic fibrosis, renal medullary cystic disease, hepatolenticular degeneration or familial cases. None of our cases presented histopathological evidence of fibrocystic disease. A review one of us made of 40 cases of this disease followed at The Children's Mercy Hospital produced no findings, clinical or anatomical, to suggest hepatic disease. We must conclude, therefore, that hepatic cirrhosis associated with fibrocystic disease in our patient population is uncommon; this is in contrast to some reports of a significant degree of association.

Evidence of disturbed lipid metabolism was meager in our cases with no clinical xanthomata and rare xanthoma cells found at autopsy. Patient # 23, a two-year-old girl with hepatic duct atresia, did have hyperlipidemia. The patient was lost to follow up.

The predominance of obstructive disease, both congenital and acquired, must be considered diagnostically. We feel that surgical evaluation of the extrahepatic biliary tree is a most important diagnostic tool and the hepatic histology in early cases sometimes is of secondary importance. In one of our cases, biliary atresia was misdiagnosed as neonatal hepatitis at the age of one month. The recognition of fatty portal cirrhosis as a possible indicator of inborn errors of metabolism also must be considered by the pathologist who may only rarely see pediatric cirrhosis. The variety of diseases which can produce biliary obstruction and, if prolonged, biliary cirrhosis is challenging. Presumably, other neoplastic and non-neoplastic agents will be implicated and, perhaps, amenable to treatment. We found associated infection to be prominent in only one case (Patient # 22) of an eight-month-old white girl with sclerosing cholangitis, myocarditis and pneumonitis. Intranuclear or intracytoplasmic inclusions were not found in any of our cases. However, the role of virus hepatitis in the production of cirrhosis seems well illustrated in our material.

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A grant of $433,400 has been awarded the Bi-State Regional Medical Program by the U. S. Department of Health, Education and Welfare, launching the program's initial attack on two of the region's three killer diseases, heart, cancer and stroke. With this grant, Bi-State joins 40 other programs in operational status across the country.

Dr. William Stoneman III, program coordinator, said the grant will cover the first of three-year funding for three projects, two in stroke and one in cancer, and for program staff operation. Approximately 25 health agencies in Missouri and Illinois communities are named as participants in the projects. Stoneman added that, as the projects get under way, at least another 30 Missouri and Illinois communities will participate through their physicians, hospitals or other health agencies.

Additional project proposals for stroke, cancer and heart disease are now being reviewed in Washington and others are being developed throughout the region, which includes eastern Missouri and southern Illinois.

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The Dog Heartworm: A Possible Problem in Man

This paper focuses the attention of medically-oriented individuals to the problem of dog heartworm in man by describing the life cycle of *Dirofilaria immitis* and the extent of its infection in its most important reservoir, the dog, and by discussing human infections. The authors are from the Public Health Laboratory Services, Department of Health and Hospitals, Division of Health, City of St. Louis. Dr. Pendergraph, who was Deputy Director at the time this paper was written, is now associated with The School of Allied Health Professions, East Carolina University, Greenville, N. C.

In a recent conference on "Diseases Common to Animals and Man" held at the University of Minnesota, it was pointed out by Schlotthauer, Harrison and Thompson[1] that infection by filarial worms of the genus *Dirofilaria* have occurred with increasing frequency in this country. They stated that the implications are significant to veterinarians, physicians and public health officials because the filariae involved are those whose natural hosts are wild and domestic animals that often live closely associated with man. They further noted that the importance of *Dirofilaria* is enhanced because of their transmission by many species of mosquitoes and by the general spread of canine dirofilariasis throughout the United States.

This paper directs the attention of medically-oriented individuals to the problems and epidemiology of *Dirofilaria immitis.* Consideration will be given to surveillance work done on dogs in the St. Louis area.

Life Cycle of *Dirofilaria immitis*

According to Cheng,[2] this genus is a fairly common heartworm of dogs, cats, foxes and wolves. It is widely distributed throughout the United States and very frequently encountered in the southern states. The male adult worm is from five to ten inches in length while the female adult worm measures ten to 12 inches in length (Fig. 1). Both are approximately 1/25 of an inch in width.

The microfilariae (embryos) measure from 220μ-330μ by 5μ-6μ and are found in the peripheral circulation. They can be found for several months in the blood. Hinman[3] reported that the maximum number of microfilaria are present between 10 PM and 3 AM.

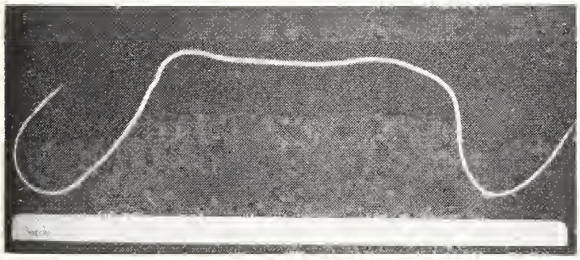

Fig. 1 Complete female worm from heart of dog. (X½)

Many species of mosquitoes belonging to the genera *Aedes, Culex* and *Anopheles* can serve as vectors. Other insects such as lice, flies and ticks are suspected as vectors.

The microfilaria migrate to the mouth parts of the mosquito where they are in a position to be introduced into another vertebrate at the mosquito's next blood meal. In eight to nine months, the adult worm appears in the heart and pulmonary arteries of the vertebrate host. In addition, the adult worm may be found in the subcutaneous tissues, lungs and eye.

Canine Dirofilariasis

Numerous studies have been conducted in regard to the prevalence of *Dirofilaria immitis* infection in dogs in the United States. Table 1 summarizes a number of major studies reported to date.

In July, 1968, an article in the *North County Journal,*[19] a local newspaper in North St. Louis County, brought to the attention of residents the high infectivity and death rate of dogs infected with *D. immitis* in the Spanish Lake area. This area is immediately north of St. Louis and adjoins the Mississippi River.

A short time later, the Public Health Labora-

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Metastatic Adrenal Gland Carcinomatosis

Case Reports

Thomas Addison described metastatic carcinoma as a cause of adrenal insufficiency,[1] but three of his four examples are doubtful because involvement was unilateral. Subsequently, adrenal insufficiency due to metastatic cancer has been recorded only rarely.[2] A recent review noted 23 examples[3] and the diagnosis has been supported by ACTH tests in only five patients.[4, 5] Adrenal insufficiency occasionally has been diagnosed when the cancer was otherwise occult.[5, 6] Our recent experience with two documented examples of carcinomatous adrenal cortical insufficiency prompted us to study adrenal carcinomatosis in a group of autopsied patients. Attention was focused particularly on carcinoma of the lung because of its frequency in our male patient population and its marked tendency to produce adrenal metastases.

Materials and Methods

Eight hundred and six consecutive autopsies on men performed during the period from Oct. 1, 1964 through Sept. 30, 1966 were reviewed and all clinically significant cancers were tabulated with regard to site of primary neoplasm and extent of adrenal metastases, if present. Clinically significant cancers were present in 294 autopsies. In three patients with more than one cancer, only the most extensive one was tabulated.

Microsections of all pulmonary carcinomas were reviewed and each was stained with alcian blue for mucus. The carcinomas were classified as epidermoid (keratin present), adenocarcinoma (glands present), small cell (undifferentiated, "oat cell"), large cell (undifferentiated without giant cells), and giant cell (undifferentiated with bizarre giant nuclei and multinucleated cells).[7-9] We saw one broncho-alveolar carcinoma and included it with the adenocarcinomas. No carcinoid tumors, adenocystic carcinomas or other rarer types of lung cancer were encountered.

The extent of adrenal metastases was assessed by review of the adrenal weights and measurements, post mortem descriptions of gross appearances and study of microsections. Those instances in which no adrenal tissue could be recognized or at least 80% of the adrenal tissue appeared to have been destroyed bilaterally were classified as massive adrenal metastases.

The hospital record of each patient was reviewed and data from the history, physical examination and laboratory tests were tabulated. Mean serum sodium, potassium, calcium, phosphorus, glucose, urea nitrogen concentrations and relative proportions of eosinophils in white blood cell differential counts were ascertained for each grade of adrenal metastasis and for patients without adrenal metastasis.

Observations

Carcinoma of the lung accounted for 36% of the cancers (Table 1) and 57% of bilateral adrenal metastases. Fifteen of the 17 examples of massive adrenal metastases were due to carcinoma of the lung (Table 2). One carcinoma

TABLE 1

SURVEY OF MALIGNANT NEOPLASMS AND ADRENAL METASTASES

Primary Malignancy	NO.	*Adrenal Metastases* NONE %	UNILATERAL %	BILATERAL %
Lung	106	54	17	29
Large intestine	26	73	12	15
Oral cavity	21	95	5	0
Stomach	17	88	0	12
Pancreas	14	72	7	21
Prostate	12	75	8	17
Leukemia	12	92	8	0
Hodgkin's disease	12	92	0	8
Other malignant lymphomas	11	91	0	9
Esophagus	11	73	9	18
Others	52	71	17	12
Totals	294	70	12	18

TABLE 2

CASES WITH BILATERAL, MASSIVE ADRENAL METASTASES, CLINICAL AND PATHOLOGIC CHARACTERISTICS

Case No.	*Age*	*Site of Primary*	*Length of Illness, Months*	*Hypoadrenalism Suspected Clinically*	*Serum Na, K mEq/l*	*Adrenal Weights Rt. Lt. gm*
1	69	Lung	6	Yes	126, 4.4	110, 65
2	76	Cecum	14	Yes	124, 6.0	70, 135
3	48	Lung	48	Yes		21, 265
4	76	Lung	Unknown	No	108, 5.3	500, 500
5	40	Lung	6	No	137, 4.2	40, 40
6	62	Not found	2	No		30, 50
7	49	Lung	6	No	135, 4.9	65, 100
8	50	Lung	1	No	112, 3.6	105, 25
9	60	Lung	18	No	122, 4.2	65, 90
10	64	Lung	6	Yes	123, 5.3	300, 300
11	46	Lung	6	No	137, 4.6	26, 29
12	72	Lung	1	Yes	116, 3.8	350, 14
13	76	Lung	1½	No	120, 4.1	30, 50
14	59	Lung	7	No	141, 5.1	125, 125
15	54	Lung	12	No		26, 26
16	53	Lung	2	Yes	118, 5.5	46, 31
17	68	Lung	18	No		95, 44

of the cecum and another of uncertain origin produced the other two instances of massive adrenal metastases.

Massive adrenal metastases were produced most often by giant cell carcinoma and adenocarcinoma of the lung (Table 3). Small cell carcinomas frequently produced bilateral adrenal metastases, but they were not often massive. Large cell carcinoma did so less frequently, and the only epidermoid carcinoma that produced bilateral adrenal metastases was highly anaplastic and metastasized as a large cell, undifferentiated carcinoma. Epidermoid and large cell carcinomas accounted for most of the lung carcinomas without adrenal metastases. Mucin-production was more common in carcinomas with bilateral adrenal metastases (48% mucin-positive) than in those with only unilateral or no adrenal metastases (28% mucin-positive), chiefly because of the preponderance of epidermoid carcinomas among the latter.

The adrenal glands were never the sole sites of metastasis and bilateral adrenal metastases never were present in absence of metastases to lymph nodes.

Abdominal lymph node metastases were recorded in 18 of the 31 patients with bilateral adrenal metastases from the lung cancer. Me-

TABLE 3

CORRELATION OF LUNG CARCINOMA TYPE WITH EXTENT OF METASTASES

	Extent of Metastases					
Type of Carcinoma	BOTH ADRENALS, MASSIVE	BOTH ADRENALS, NOT MASSIVE	ONE ADRENAL	EXTRA-ADRENAL ONLY	NONE	TOTALS
Epidermoid	1	0	5	19	9	34
Small cell	2	6	6	8	1	23
Adenocarcinoma	5	8	3	5	1	22
Large cell	2	1	4	10	3	20
Giant cell	5	1	0	1	0	7
Totals	15	16	18	43	14	106

A review of clinical and pathological observations of 294 consecutive autopsied male cancer patients. Particular attention was focused on carcinoma of the lung because of its frequency in our male patient population and its marked tendency to produce adrenal metastases. Dr. Meyer is Associate Professor of Pathology, University of Missouri School of Medicine and former Chief, Laboratory Service, John J. Cochran Veterans Hospital. Dr. D'Elia is Graduate Fellow in Biochemistry, St. Louis University School of Medicine, and was formerly Postdoctoral Fellow in Endocrinology at John J. Cochran Veterans Hospital. This study was supported by the Veterans Administration.

tastases were present in liver, bone and brain, singly or in combination, in all but four of these 31 patients.

Hepatic metastases were recorded clinically in eight of the 15 lung cancer patients with massive adrenal metastases and in 25 of the 48 with any degree of adrenal metastasis. Six of the 14 patients who died of lung cancer without metastases had clinical hepatomegaly. Consequently, the detection of hepatomegaly was of little value in predicting the presence of adrenal metastases.

Adrenal insufficiency was considered during the lives of five of the patients with bilateral, massive adrenal metastases and was supported by low urinary 17-ketosteroid and 17-hydroxysteroid excretions in two, one of whom had a confirmatory ACTH test. Low serum sodium levels were noted in most patients with bilateral adrenal metastases and less frequently in those with only unilateral or no adrenal metastases. Serum levels of potassium, glucose, urea nitrogen, calcium and phosphorus and the percentage of eosinophils in differential white blood counts usually were unaffected by adrenal metastases.

Case Reports

The following are case reports with clinical proof of adrenal insufficiency:

Case # 1. A 69-year-old retired steel worker was in good health until June, 1964, when he noted progressive weakness, anorexia, loss of weight, dyspnea, wheezing and hemoptysis. He smoked cigarettes moderately. Because of a left upper lobe cavity and positive tuberculin test, he was treated with streptomycin and isoniazid for two months, but no acid-fast bacteria could be cultured. During this time, salt-craving, increase in cutaneous pigmentation, particularly in scars, creases, and points of pressure, and hypotension were noted.

A diagnosis of Addison's disease was made and glucocorticoid therapy was begun in October, 1964, with immediate improvement in appetite, strength and blood pressure. The patient was admitted to the John Cochran Veterans Administration Hospital shortly thereafter because of onset of focal seizures. He appeared weak and had a blood pressure of 130/70 mm Hg with a pulse rate of 88/min. The hematocrit value was 46%, the white blood cell count was 10,250/cu mm with a normal differential, the urine contained a trace of sugar and he was slightly hyponatremic. Other laboratory data included fasting blood sugar reading of 220 mg/100 ml and blood urea nitrogen reading of 30 mg/100 ml. An electrocardiogram was compatible with hyperkalemia. An abdominal roentgenograph showed no soft tissue calcification.

Urine collected over 24 hours contained 180 mEq of sodium, 82 mEq of potassium, 2.5 mg of 17-ketosteroids and too little 17-ketosteroids and hydroxysteroids to measure. An intramuscular injection of ACTH resulted in no increase in excretion of 17-ketosteroids and hydroxysteroids over 48 hours. Because of developing mental confusion, he was prepared for a ^{203}Hg brain scan with an intramuscular injection of mercurial diuretic. The scan was normal, but he became hypotensive the next day. He responded rapidly to transfusion of 1,000 ml of whole blood given because of a hematocrit value of 28%. Subsequently, a bout of left lower lobe pneumonia was treated with penicillin and increased doses of glucocorticoids. Digitalis was administered because of edema. On Jan. 5, 1965, he was again given an intramuscular injection of mercurial diuretic in preparation for a brain scan. He became severely hypotensive on the following day and failed to respond to intravenous administration of pressor amines and glucocorticoids.

Autopsy findings: The body was undernourished and each pleural space contained 400 ml of fluid. The heart weighed 250 gm. The upper lobe of the left lung contained a cavitated tumor 4 cm in diameter communicating with the superior bronchus. Metastatic carcinoma was present in all lobes of both lungs, forming nodules up to 1 cm in diameter. The liver (1,480 gm) contained five nodules of metastatic carcinoma less than 1 cm in diameter. The sites of the adrenal glands were occupied by spheroidal neoplastic masses, the right 5 cm and the left 6 cm in diameter. Sections demonstrated metastatic carcinoma surrounding necrotic adrenal glands (Fig. 1). The adrenal veins were patent as they disappeared into the tumors. Metastatic carcinoma was present in bronchopulmonary, mediastinal and periaortic lymph nodes, the diaphragm, the jejunum and the brain (1,480 gm). The other organs were unremarkable.

Microscopic examination showed a poorly dif-

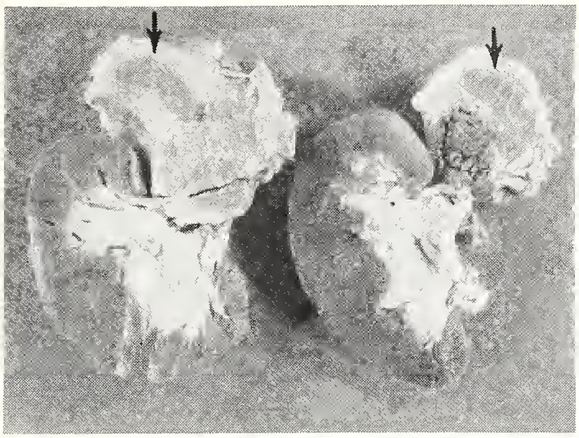

Fig. 1 Sectioned adrenal glands and kidneys of Case # 1. The adrenal glands are dark crescents *(arrows)* surrounded by lighter-colored neoplasm. Necrosis and hemorrhage are present in the tumor.

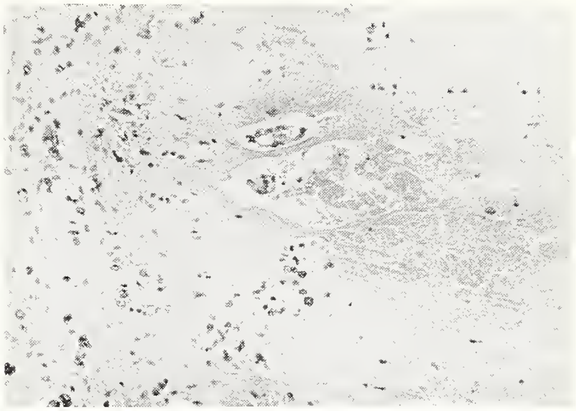

Fig. 2 (Case # 1) Periadrenal growth of adenocarcinoma with a dense fibrous stroma. The adrenal cortex *(right)* is completely necrotic, but the tubular connective tissue framework of the zona faciculata is preserved. A few nests of neoplastic cells have invaded the zona glomerulosa (hematoxylin and eosin, × 200).

ferentiated mucin-positive adenocarcinoma with origin from a bronchus and invasion of blood vessels. The adrenal glands were totally necrotic, but the connective tissue skeleton of the cortex still could be recognized (Fig. 2). The carcinoma had invaded the outer portion of the cortex focally, but had grown chiefly in the retroperitoneum around the adrenals where it was associated with abundant fibrous stroma. The islets of Langerhans showed no changes explaining the hyperglycemia.

This patient was treated for adrenal cortical insufficiency prior to diagnosis of carcinomatosis. After onset of cerebral symptoms secondary to metastatic carcinoma, adrenal crises unwittingly were precipitated by administration of mercurial diuretics in preparation for brain scan.

Extrinsic growth of carcinoma resulted in adrenal compression and necrosis, a rare mode of adrenal destruction by carcinoma that has been reported previously only once.[6] The hyperglycemia and edema are unexplained and atypical for adrenal cortical insufficiency.

Case # 2. The patient was a 76-year-old man who had had a right colectomy for adenocarcinoma of the cecum with negative lymph nodes in 1955. He was admitted to the hospital on Jan. 12, 1965 because of dull epigastric pain of one year's duration and loss of 30 lbs. of body weight. The blood pressure was 130/67 mm Hg and the pulse rate was 85/min. The liver was questionably enlarged. The epigastrium was tender. The hemogram was normal, and serum electrolytes showed hyperkalemia and a moderate hyperchloremic acidosis. The blood urea nitrogen value was 50 mg/100 ml and the fasting blood sugar reading was 58 mg/100 ml. A mass demonstrated roentgenographically in the lower lobe of the left lung was considered to be metastatic adenocarcinoma. During preparation by saline enemas for colonic roentgenography, the patient became apneic and hypotensive. Serum electrolyte concentrations immediately after resuscitation were sodium, 124; potassium, 6.0; chloride, 79; and bicarbonate, 14.5 mEq/l. Fluid and pressor amines were administered intravenously, and an exploratory laparotomy was performed for suspected intra-abdominal catastrophe. No cause for the collapse was evident, but biopsy of a left retroperitoneal mass showed adenocarcinoma. Postoperatively, a Pseudomonas pneumonia developed that responded promptly to polymyxin E (colymycin) and large doses of hydrocortisone. He was then given maintenance doses of prednisone with marked improvement in blood pressure, mental status and serum electrolyte concentrations. While he was receiving 50 mg of prednisone daily, a 24-hour sample of urine contained 1.9 mg 17-ketosteroids and 8.2 mg 17-hydroxysteroids. Three weeks postoperatively, the steroid therapy was discontinued and the patient had another hypotensive episode associated with deterioration of serum electrolyte values. Steroid therapy was resumed, but the pneumonia recurred when the polymyxin E was discontinued because of elevation of blood urea nitrogen reading to 85 mg/100 ml. Steroid therapy was reduced and finally withdrawn, and cephalothin sodium was administered. Two days after discontinuation of the steroid therapy, he became hypotensive and died.

Autopsy findings: The body was undernourished and a sacral decubitus ulcer was present. Fibrous peritoneal adhesions were noted, and the right side of the colon was absent with continuity established through an ileo-transverse colostomy. The heart weighed 315 gm. The lungs weighed 1,190 gm. A highly mucinous metastatic adenocarcinoma 7 cm in diameter was present in the left lower lobe. The adrenal glands were spheroidal and greatly enlarged, the right weighing 70 gm and the left weighing 135 gm (Fig. 3). Although totally

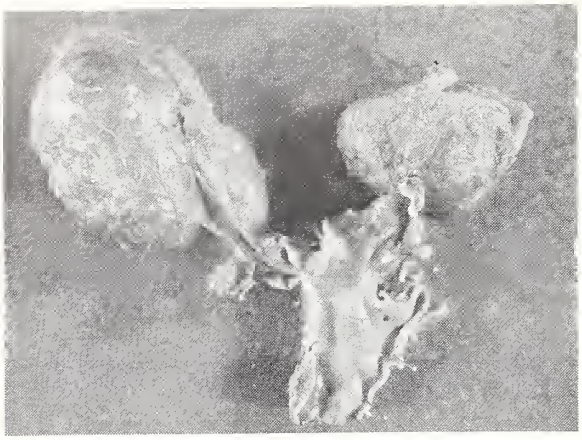

Fig. 3 Greatly enlarged adrenal glands of Case # 2 are shown attached by their veins to the left renal vein and inferior vena cava, viewed from behind. The capsules of the adrenals are intact, although distended by metastatic neoplasm. The parenchyma is entirely replaced by adrenocarcinoma.

replaced by tumor, they were easily separated from adjacent tissues. No remnants of adrenal tissue could be found, but the adrenal veins were patent. Periaortic lymph nodes were filled with mucinous adenocarcinoma.

Although this patient's adrenal glands were totally destroyed by metastatic carcinoma, he somehow survived an abdominal operation without steroid hormone replacement. Prednisone was given when he developed Pseudomonas pneumonia. His condition worsened when the prednisone therapy was discontinued. Evidently, a diagnosis of adrenal insufficiency was not fully accepted antemortem.

DISCUSSION

The rarity of metastatic carcinoma as a cause of adrenal insufficiency in the past was noted by Guttman.[10] He observed that metastatic carcinoma accounted for only three of 566 cases of adrenal insufficiency reported prior to 1930. The first convincing instance of Addison's disease caused by metastatic carcinoma was not reported in this country until 1952.[11] Since lung cancer accounts for the majority of examples of carcinomatous Addison's disease,[2, 3] the increasing number of cases reported since 1952 may reflect the rising prevalence of carcinoma of the lungs.[12] Prior to 1930, lung cancer was an unusual neoplasm, but now it is the most common internal malignant tumor in the United States.[13] Carcinomas of the breast and lung are the most prone to metastasize to the adrenal glands,[14] but metastases from the breast appear to account for adrenal insufficiency only rarely.[4, 15] On the other hand, our observations indicate that lung cancer is now a relatively common cause of adrenal insufficiency. Prolongation of the lives of patients with lung cancer by chemotherapy or other advances might allow features of Addison's disease to develop still more frequently.

Initiation of chemotherapy in the presence of adrenal insufficiency requires special precautions.[16, 17] The death of one of our patients (Table 2, Case # 5) followed an adverse hematologic reaction of 5-fluorouracil administered without corticosteroid-replacement. Diuretics and enemas may be dangerous by further promoting the salt and water depletion of Addison's disease (Cases # 1 and # 2).

The clinical detection of adrenal cortical insufficiency secondary to carcinomatosis usually requires biochemical study of corticosteroids. Reliable evidence of the condition seldom is elicited by history and physical examination, and its presence often is obscured by other manifestations of the malignant tumor. Abdominal masses referable to the adrenals were palpated in only two of our patients. Hepatic enlargement commonly is present, but also is frequent in cancer patients without adrenal metastases. We have seen one patient whose massive adrenal replacement by metastatic giant cell carcinoma was misinterpreted as hepatosplenomegaly. Increased cutaneous pigmentation seldom is noted, probably because the malignant disease usually is rapidly fatal and a more prolonged course is necessary for development of pigmentation. Serum electrolyte abnormalities may offer a clue to presence of adrenal insufficiency in patients with carcinoma, but the nonspecific effects of carcinomatosis on nutrition and hydration, frequency of concomitant illnesses and the occasional antidiuretic effect of lung carcinomas also may contribute to hyponatremia. Hyponatremia certainly should be taken as a warning, and it was noted in ten of the 13 patients with massive adrenal carcinomatosis whose serum sodium levels were determined. If the patient with advanced carcinomatosis is to be offered more than custodial care and, particularly, if chemotherapy is contemplated, more precise studies of adrenal cortical function should be performed. Measurement of plasma levels or urinary excretions of 17-ketosteroids and 17-hydroxysteroids before and after ACTH administration is indicated under these circumstances. If frank adrenocortical insufficiency or decreased cortical reserve is discovered, the patient may benefit by specific therapy. Favorable responses were noted in two of the patients treated with corticosteroids in our series and in five published case reports.[3, 5, 6] Hyponatremia secondary to secretion of antidiuretic hormone by carcinomas does not respond to corticosteroid therapy.[18]

Massive carcinomatosis of the adrenals secondary to lung cancer usually is due to carcinomas other than the epidermoid type. Adenocarcinoma, giant cell carcinoma and, probably, small cell carcinoma are prone to cause massive adrenal replacement. Consequently, the physician caring for patients with these types of pulmonary carcinoma should be wary of adrenal insufficiency.

Heuson proposed that in some instances adrenal glands are destroyed by massive periadrenal infiltration by tumor carried to the region through lymphatics.[5] In support of his hypothesis, we noted metastatic carcinoma in abdominal lymph nodes in most of our patients with massive adrenal carcinomatosis and infarction of adrenal cortex was demonstrated in one case. Strangulation of the adrenals by periglandular growth of cancer, however, is less frequent than metastasis inside the glands with destruction of parenchyma by compression between tumor and capsule.

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The Dog Heartworm

(Continued from page 733)

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JERRY BAMSHAD, M.D., ***Columbia***

Cutaneous Neurohormones

THREE NEUROHORMONES, melatonin, acetylcholine and catecholamines, are secreted by sympathetic and cholinergic sympathetic nerve endings in the skin. The relation of these neurohormones to the skin and skin appendages is discussed.

Cutaneous nerves contain only sensory and autonomic nerve fibers. In the mid-dermis, the majority of cutaneous nerves are unmyelinated, but fibroblasts and collagen fibers may be in close relation with the nerve trunks.[1] In the higher dermis, fewer nerve trunks are seen. In the papillary dermis and in subepidermal regions, only individual branching unmyelinated nerve fibers are found. Specialized nerve corpuscles, which once were of importance, are now considered to be morphologically-damaged free nerve endings.[2] A few authors state that intraepidermal nerve fibers are rare or completely absent. Other investigators, however, agree that peripheral nerve endings penetrate into the epidermis.[3-6]

The nerve endings in the skin are sensory, lack the usual sheath, contain mitochondria, granules and vesicles.

A second group of cutaneous nerves compose the autonomie nervous system. This system functions strictly about the blood vessels, erector pilorum muscles and eccrine glands. Histochemical studies have shown that the endings of these nerve fibers contain the neurohormones acetylcholine and catecholamines. Spontaneously or after stimulation, the endings of the nerve fibers of this system secrete several neurohormones.

The following paragraphs illustrate the action of these hormones on skin and skin appendages:

1. *Melatonin*

Melatonin is N-acetyl 5-methoxy tryptamine (Fig. 1). The pineal gland is the richest source of this hormone. However, it has been found in peripheral nerves of humans and monkeys.[7] This compound derives from serotonin by N-acetylation in which acetyl co-enzyme A donates the acetate. It is methylated at the 5-hydroxy group and S-adenosyl-methionine is the methyl donor.[8] Melatonin is rapidly metabolized and only a small portion of it is bound and retained. Degradation of it mainly occurs in the liver by hydroxylation at position 6 and conjugation with sulfate and gluconic acid.

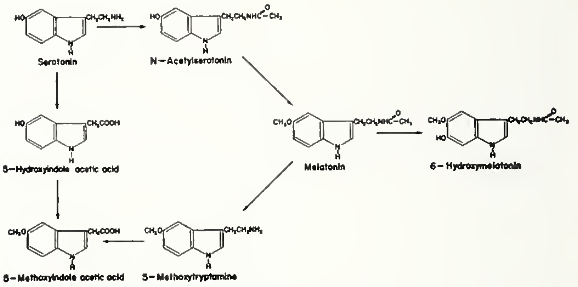

Fig. 1 Biosynthesis and catabolism of melatonin.

This neurohormone lightens the color of frog melanocytes by aggregating melanin granules, opposing the effect of melanocyte stimulating hormone (MSH) and adrenocorticotrophic hormone (ACTH). The lightening effect of melatonin is 100,000 times greater than noradrenalin in equal amount and in concentration as little as 10^{-12} g/ml can produce lightening of frog skin. Injecting exogenous melatonin into human skin does not cause lightening. It is not clear as yet whether or not melatonin might be the cause of depigmentation in some of the skin diseases such as vitiligo.[9]

2. *Acetylcholine*

Acetylcholine is another neurohormone which is secreted at the cholinergic sympathetic nerve endings. Acetylcholine is hydrolized to choline and acetic acid by the action of the enzyme acetylcholine esterase found not only at the nerve endings, but, also, within the nerve fibers.[10] It is formed from acetate and choline. Choline acetylase, which is activated by K and Mg ions, catalyzes the transfer of acetyl from C° A acetate to choline (Fig. 2).

A basic and detailed discussion of the relation of three neurohormones, melatonin, aeetyleholine and eatecholamines, to the skin and skin appendages. Dr. Bamshad is from the University of Missouri Medical Center where he is Assistant Professor in the Division of Dermatology.

Physostigmine, neostigmine and organo-phosphorus compounds inactivate acetylcholinesterase.

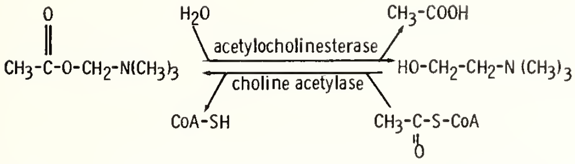

Fig. 2 Biosynthesis and catabolism of acetylcholine.

Acetylcholine has muscarinic and nicotinic action on some of the structures of the skin. Its muscarinic action is directly on the cells like the cells of the capillaries and sweat glands. Nicotinic action, however, is through axon reflex. The combination of these two actions of acetylcholine, whether it is injected exogenously or secreted at the nerve endings, causes erythema, edema, flare, sweating and pilomotion in normal skin. It has been shown that skin of patients with atopic dermatitis shows paradoxical response to acetylcholine and the result of direct action of acetylcholine on the capillaries of the skin of patients with atopic dermatitis is vasoconstriction instead of vasodilatation.[11]

3. *Catecholamines*

Noradrenalin is the predominant catecholamine in the skin. About 90% to 97% of total catecholamine is noradrenalin and the remainder is adrenalin. They are stored at, and secreted from, adrenergic nerve endings and have been seen in arrector pilorum muscles and to a lesser degree around the blood vessels. It has been found that the mean amount of catecholamines in the skin could be $0.2\mu g/gm$ to $0.6\mu g/gm$ dry skin.[12]

After complete postganglionic denervation, 95% of catecholamines will disappear from the skin. Uptake of circulating C^{14} noradrenalin also will be impaired.

Catecholamines are formed from tyrosine (Fig. 3); norepinephrine is synthetized in the skin, but epinephrine is taken up from the blood. They are metabolized by O-methylation at position 3 by catechol-O-methyltransferase (COMT) and by oxidative deamination by monamine oxidase (MAO). Some of the excreted catecholamines also will be washed away by circulation and some return to nerve ending vesicles for rebinding.[13] It should be noted that catechol-o-methyl transferase inactivates free and active catecholamines outside of the nerve endings, but oxidation deamination of the catecholamines occurs within the nerve endings. Therefore, O-methylation is now widely accepted as the principal pathway for metabolism of catecholamines. Noradrenalin and adrenalin produce vasoconstriction sweating and pilomotion in normal skin. In inflammation of the skin because of activation of COMT, catecholamines could be abnormally inactivated thereby resulting in a sustained vasomotor imbalance, vasodilation and enhanced inflammation.[14] In vitro, tests have shown that all of the above mentioned hormones lighten the color of frog melanocytes.[15]

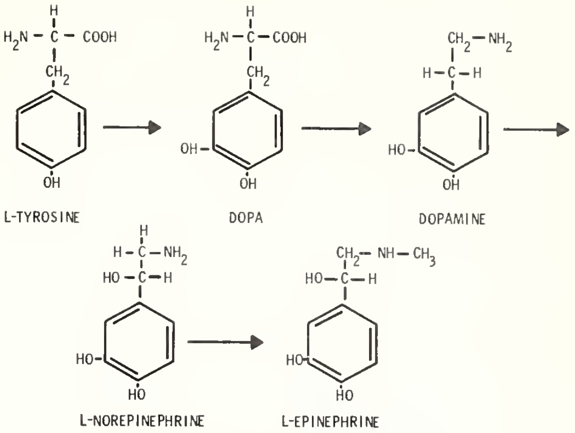

Fig. 3 Biosynthesis of catecholamines.

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Continuing Education Coming Events

Sept. 8	**Psychiatric Problems of the Pediatrician's Practice** (Ten consecutive Tuesdays, 8 PM, no fee) St. Louis University Department of Neurology and Psychiatry and Metropolitan College 3637 West Pine, St. Louis 63108
Sept. 8-11	**Cerebral Space Occupying Processes and Differential Diagnosis—"A Radiological-Pathological Correlation"** Continuing Education, M.U. School of Medicine Medical Center Auditorium, Columbia 65201
Sept. 15-16	**AMA 29th Congress on Occupational Health** Stouffer's Riverfront Inn, St. Louis (10½ hours AAGP credit)
Sept. 16	**General Psychiatric Problems in Medical Practice** (Eight consecutive Tuesdays, 8 PM, no fee) St. Louis University Department of Neurology and Psychiatry and Metropolitan College 3637 West Pine, St. Louis 63108
Sept. 17	**Current Concepts in Blood Banking** St. Louis U. Department of Neurology and Psychiatry and Metropolitan College 3637 West Pine, St. Louis 63108
Oct. 1-2	**Seminar—Allergy and Immunology** American College of Allergists, Danciger Institute and the Children's Mercy Hospital Menorah Medical Center, Kansas City 64110 (AAGP credit)
Oct. 10-11	**M.D. Day** Continuing Education, M.U. School of Medicine Medical Center Auditorium, Columbia 65201
Oct. 16-17	**Today's Concept of Care of the Cerebral Palsied** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Oct. 21-24	**Emergency Care and Transportation of the Sick and Injured (Advanced Practical Course)** American Academy of Orthopaedic Surgeons Committee on Injuries, Washington University and St. Louis University Schools of Medicine, American Red Cross, St. Louis Fire Department St. Louis Medical Society, 3839 Lindell, St. Louis 63108
Oct. 22-23	**Definitive and Restorative Care of Occlusive Vascular Disease of Lower Extremities** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Nov. 11	**Lecture-Discussion Seminar—"Sexual and Marital Problems"** (Six consecutive Tuesdays, 8 PM, no fee) St. Louis U. Department of Neurology and Psychiatry and Metropolitan College 3637 West Pine, St. Louis 63108

President's Message

There was a great deal of contrast between the groups of young Americans who were present at the opening session of the American Medical Association's House of Delegates on Sunday, July 13, in New York City. Two of the groups represented what we like to stress as outstanding examples of our nation's youth. Unfortunately, the third group did not fit this mold.

First came the great Drum and Bugle Corps of the U. S. Marines with a most fitting tribute to the flags under which our nation has moved forward.

Next came a shouting, screaming group of unshaven young men and unruly women who hissed all they did not approve. They usurped the platform and used the microphone to mouth their own platitudes and accusations.

And last, but certainly not least, were the members of the Student American Medical Association who were attending as guests of the AMA. Unlike their unkempt contemporaries, they stood when the National Anthem was played and applauded the Marines for an outstanding performance.

I am convinced that the wave of the future is represented by the young Marines and the youthful SAMA members—not by the invading youth who decried the actions of the AMA, but admitted had no program of their own to provide health care for the poor.

Doyle C. McCraw, M.D.

Even though the members of SAMA are far removed from the invading young people, they, too, have different ideas about medical care in the future and about social justice from those of today's physicians.

This makes it very important that every practicing physician make an attempt to meet these young future physicians and work with them to make sure that they stay in the mainstream of medicine.

County societies in Missouri soon will receive a list of the medical students from their area. It is important that county society members make contact with these young men and women to encourage them to attain their degrees and later to locate in Missouri.

* * *

As usual, a large number of Missourians attended the AMA meeting in New York and our delegates, alternates, officers and others were very busy.

Gathering place for our group was Room 4201 at the Americana Hotel where our delegates, alternates and others caucused on matters of importance to medicine. You will read about the actions of the AMA House of Delegates elsewhere in this publication.

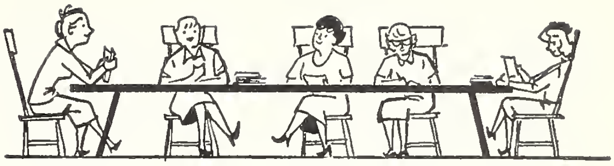
One of the highlights of our stay in New York City was an informal reception in our Missouri room on Sunday night, July 13, for James M. Whittico, M.D., and Mrs. Whittico of St. Louis. Dr. Whittico is president of the National Medical Association as well as a member of the St. Louis Medical Society, the Missouri State Medical Association and the AMA. He was a platform guest of honor at the AMA opening session earlier that day.

Most of the officers of the AMA, members of the Board of Trustees and others visited "Little Missouri" for the reception on Sunday night to meet Dr. and Mrs. Whittico as well as other Missourians.

Attending an AMA meeting is a most interesting experience. I would recommend to all members of the Missouri State Medical Association that they make an attempt at sometime in the future to attend such a session. It is most worthwhile!

WHAT'S SO WEAK ABOUT THE WEAKER SEX?

Woman's Auxiliary



In May, 1922, 47 years ago, 26 wives of doctors helped set up a temporary organization which marked the beginning of the Woman's Auxiliary to the American Medical Association. On July 13-17, 1969 in the Waldorf-Astoria Hotel, New York City, representatives of a membership of 91,000 distributed among 50 auxiliaries held their annual convention. The Auxiliary's activities have changed vastly in its first generation of existence; the objectives have remained essentially as they were at the beginning.

Missouri is allowed seven delegates and all were present. I'm sure I speak for the other six when I say we came away enriched with knowledge and are enthusiastic about continuing work on the auxiliary projects.

Mrs. Chester Young, National AMA-ERF Chairman, presented to Dr. Milford Rouse, President of the AMA-ERF Foundation, a check for $428,875.77. This is an increase of $39,051.13. A Gift of Love in memory of Mrs. C. C. Long totaled $10,647.00.

Mrs. James A. Reid, President

In his speech, Dr. Dwight Wilbur, AMA President, stressed the importance of Health Careers-Health Manpower. This program has had priority in Missouri for several years and will be pushed this year. Mrs. James S. Key, our Missouri Chairman, has spent many hours of effort on this project.

The outstanding speaker of this Auxiliary Convention was Ethel J. Alpenfels, Ph.D., Professor of Anthropology, New York University. One of her key points was "The failure to let our men show their emotion." We won't let our little boys cry because this is not manly. This is one of the reasons our men die at an early age.

Mrs. John Chenault, Decatur, Ala., was officially installed as President although she has served for two and a half months in that capacity. She will continue the theme, "Accent on Youth," and has added "Strengthen the Family Unit."

So closed the 47th Annual Convention of the Woman's Auxiliary to the American Medical Association.

EDITORIALS

THE MOON AND MEDICINE

The worldwide impact of the flight of Apollo XI is already well established; even now, before its scheduled splash-down the afternoon of July 24. And it is probably true that never before in modern history have the hearts and minds of so many people the world ever been in such accord as they were during the moments of the historic walk on the moon. It was the greatest "plus" the United States has scored in a long time. Also, for Americans, it was a most exciting change of pace from the usual TV diet of documentaries on racial distrust, pollution, crime in the streets, pot and death on the highways.

But there are those (even before splash-down) who already assert that space curiosity has been too expensive for us in the face of many earthly problems we must somehow resolve.

Yet, it would take the most naive skeptic to even question the so-called "side" benefits we have derived from the space effort so far, even as they apply to the field of medicine. Miniaturization of electronic circuits and many useful synthetic materials used in medicine today were either directly or indirectly pioneered by corporations working on contracts related to the space program. And the field of medicine is only one of many examples in business and industry which have made use of the by-products of the space advances.

Who knows, with more space knowledge, we may even be on the verge of producing a harmless cigarette or a cholesterol-free hot dog.

E. W. JOHNSON, M.D.
The Cape County Journal
July, 1969

GIVE ME JUST A MOMENT

I have just had an interesting and unique experience. This summer, a friend and I had our canoe and camping gear flown into a remote area of Canadian lake country. We felled trees to set up camp and there we spent ten days. We were 75 miles from any road and, as nearly as we could learn, from another human being. In those ten days, we heard three airplanes. We saw no evidence that there were other people in the world except for one ancient campfire site on a rocky point and one rusty tin can on another.

This, of course, we expected and desired, not because we were mad at the world but because we wanted the experience of living in an uninhabited area. We competently anticipated our needs so that we camped in comfort, and we thoroughly enjoyed the wildlife and the fishing.

More interesting were some sidelights we did not anticipate. First, the silence was awesome. Not until we encountered it did we realize what a day-to-day rash of discordant sound we live in. Except for the quack of a startled duck, the splash of a fish or the evening frog concert, we heard nothing but the noise we made ourselves. As a result, we even found ourselves talking quietly and not talking very much.

A second observation was that our senses became tremendously keen. We heard the distant trickle of a tiny waterfall out of a small lake and pinpointed it by ear days before we got around to looking for it. We also became very observant of the weather. A little bank of clouds in the northwest held an entirely new meaning for us when five miles from camp rather than across a parking lot from our automobile. A change in wind direction or intensity was noted immediately. We found ourselves predicting the weather hours in advance and quite accurately.

Also, we became exceedingly careful. Stepping off a ledge or over a fallen tree was done slowly and with caution. The canoe was always tied with extra care and was drawn entirely out of the water at night. Matches were kept in several waterproof containers in different locations. Firewood was stored out of the weather whether rain threatened or not.

Last, we found our physical resources increasing faster than expected. During the first couple of days, an uninterrupted three-mile stint of paddling made us quite arm-weary. The last few days, a trip of six miles could be made with little effort.

In all, the experience paid us rich dividends. To some, such a vacation would have been the sorriest possible trip. To us, it yielded the satisfying observation that two fellows in their 50's might not still run a fast 100-yard dash, but we could do this bit better than the speedsters.

And, for a fellow of my age, that's a cheering thought.

WILFRED E. WOOLDRIDGE, M.D.
Springfield

COMMENT . . .

Our Readers Write

(In his "Missouri Medicine in Review" column in the April, 1969 issue of Missouri Medicine, *Dr. Leo H. Pollock included a brief reference to the historical background of the St. Louis University and Washington University Schools of Medicine. His column in the June, 1969 issue presented additional information forwarded by Dr. M. Pinson Neal of the University of Missouri School of Medicine. The following letter refers to the June column.—*The Ed.*)*

Leo H. Pollock, M.D.
751 East 63rd St.
Kansas City, Mo. 64110

Dear Dr. Pollock:

I enjoyed the clarifications on the history of the three State medical schools in the "Forty Years Ago" column in Missouri Medicine, on page 454 of the current issue (June, 1969). A good deal of the story of the medical schools was omitted, probably for the sake of brevity, but I can't resist embellishing that a little bit. I would take issue with Dr. Neal that McDowell's College and Pope's Colege were the same institution.

St. Louis University, initially established as an academy for young men in 1818, received a charter as a university from the General Assembly of the State of Missouri in 1832. A College of Medicine with a faculty of members of the St. Louis community was established as a part of that University four years later. Listed among the faculty in 1837 was William Beaumont. Charles Pope, who at 36 years of age became President of the American Medical Association, was the Dean. The Missouri Medical College, founded as the Medical Department of Kemper College (St. Louis), became the Medical Department of the University of Missouri in 1847. This relationship was dissolved in 1857. The school was better known as McDowell's College after its Dean, Joseph N. McDowell, nephew of the surgical pioneer, Ephriam McDowell.

As a result of the know-nothing movement which reached the central states in 1855, it was deemed advisable to separate Pope's College from the young St. Louis University and allow it to carry on as an independent institution. It then received the title, St. Louis College of Medicine, and continued to function as a medical school during the war between the states. The McDowell College (Missouri Medical College) was closed by Union troops and used as a stable and prison during the war, probably because of the strong Confederate proclivities of Dr. McDowell. The College reopened after the conclusion of hostilities under its original faculty and continued to use the name, The Missouri Medical College.

These two institutions continued as schools of high standards, attracting the better physicians of the community to their faculties, until in 1891 when the St. Louis Medical College joined Washington University to become its School of Medicine. Thus was established a thread of continuity between these two University Schools of Medicine. Eight years later, The Missouri Medical College joined the Medical Department of Washington University. St. Louis University in 1903 purchased the Marion-Sims Beaumont College of Medicine in St. Louis and thus reentered the field of medical education.

WILLIAM STONEMAN, III, M.D.
Program Coordinator
Bi-State Regional Medical Program
St. Louis, Mo. 63103

In Memoriam

Florian, Albert J., M.D., Tucson, Ariz., a graduate of Kansas City Medical School, 1905; member of Jackson County Medical Society; aged 86; died June 29, 1969.

Epple, Kathryn C., M.D., Mexico, a graduate of the University of Missouri and the University of Louisville, 1952; member of Audrain County Medical Society; aged 43; died July 24, 1969.

Epple, Lawrence K., M.D., Mexico, a graduate of the University of Missouri and the University of Louisville, 1952; member of Audrain County Medical Society; aged 44; died July 24, 1969.

Hamel, Herbert A., M.D., Kansas City, a graduate of Tennessee University, 1940; member of Jackson County Medical Society; aged 56; died July 24, 1969.

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New Members

Robert M. Berger, M.D., 7752 Keswick Pl., St. Louis, has become a member of St. Louis Medical Society. Dr. Berger is a native of New York, N. Y., received his preliminary education at New York University and the University College of Arts & Science and his M.D. degree at New York University in 1967. He specializes in ophthalmology.

Anthony A. Berni, M.D., 1311 Crimson Dr., St. Louis, has become a member of St. Louis Medical Society. Dr. Berni is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri in 1963. He specializes in radiology.

Manuel R. Comas, M.D., 7620 Ravensridge Dr., St. Louis, has become a member of St. Louis Medical Society. Dr. Comas is a native of San Juan, Puerto Rico, received his preliminary education at Yale University and his M.D. degree at the University of Puerto Rico in 1960. He specializes in obstetrics and gynecology.

Marvin A. Cook, M.D., 2723 Beverly Dr., Maryland Heights, has become a member of St. Louis Medical Society. Dr. Cook is a native of Cleveland, Ohio, received his preliminary education at John Carroll University and his M.D. degree at St. Louis University in 1964. He specializes in pediatrics.

John R. Fischer, M.D., 950 Francis Pl., St. Louis, has become a member of St. Louis County Medical Society. Dr. Fischer is a native of Dunnell, Minn., received his preliminary education at the University of Arizona and his M.D. degree at Washington University in 1949. He specializes in psychiatry.

James F. Harms, M.D., Nevada, has become a member of West Central Missouri Medical Society. Dr. Harms is a native of Salisbury, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1962. He specializes in general surgery.

Robert Henry, M.D., Southland Shopping Center, Harrisonville, has become a member of West Central Missouri Medical Society. Dr. Henry is a native of St. Cloud, Minn., received his preliminary education at St. John's University and his M.D. degree at the University of Minnesota in 1964. He specializes in general surgery.

William J. Huse, II, M.D., 4706 Broadway, Kansas City, has become a member of Jackson County Medical Society. Dr. Huse is a native of Tulsa, Okla., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1963. He specializes in obstetrics and gynecology.

Joseph E. Loewenstein, M.D., 28 Whitehall Ct., St. Louis, has become a member of St. Louis Medical Society. Dr. Loewenstein is a native of Crockett, Tex., received his preliminary education at the University of Texas and his M.D. degree at Washington University in 1963. He specializes in internal medicine.

Glenn T. Peake, M.D., 660 S. Euclid Ave., St. Louis, has become a member of St. Louis Medical-

(Continued on page 759)

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class of '66

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thesis...in progress

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(persistent indigestion)

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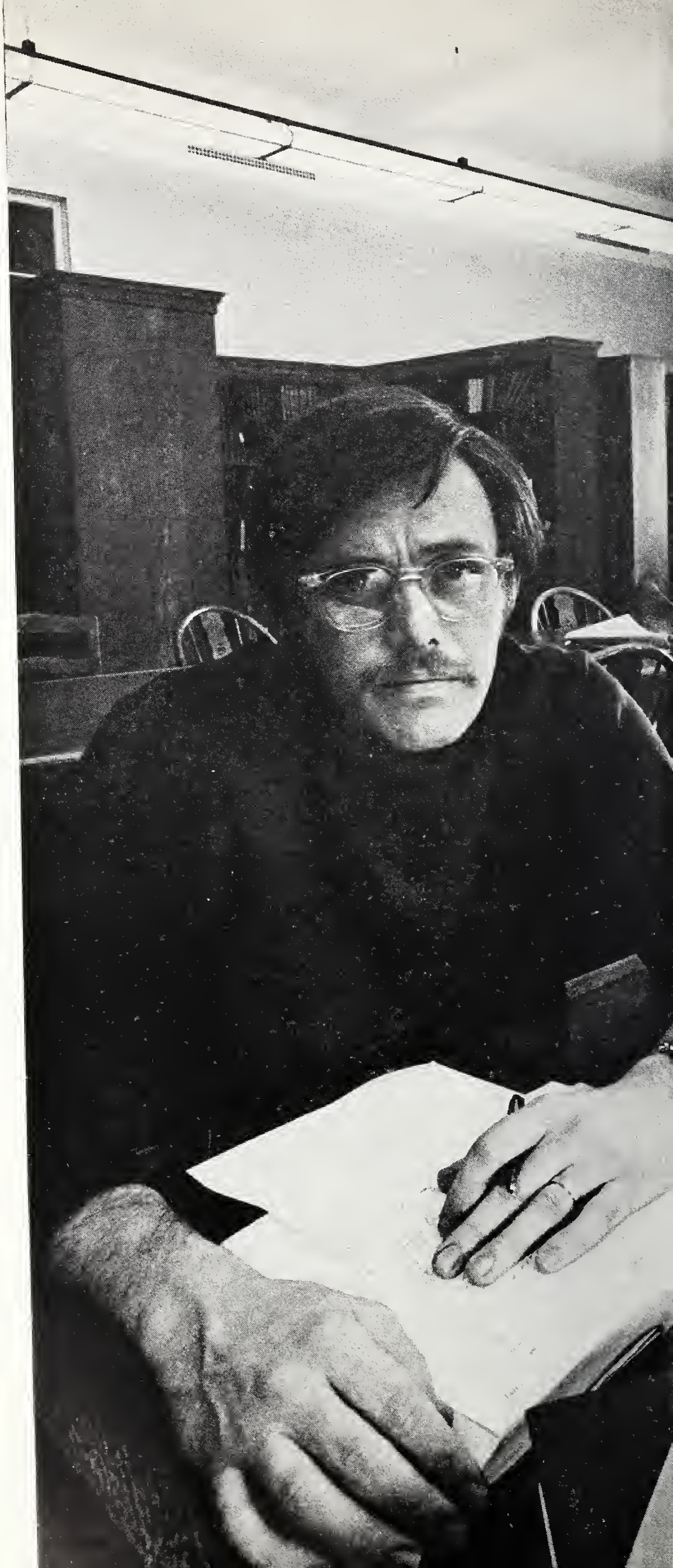

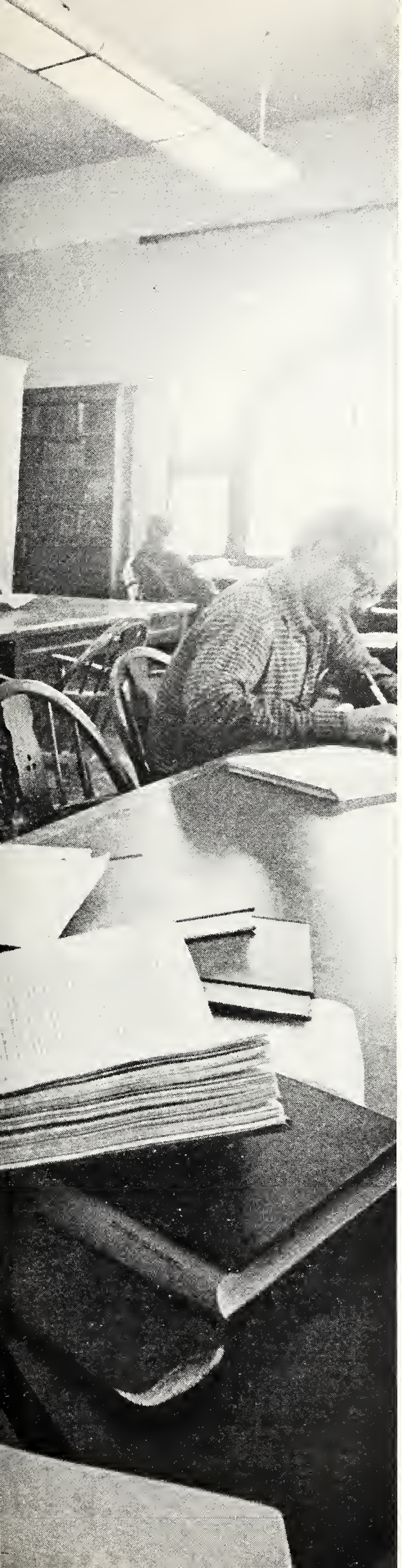

Rx

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M. A. (class of '66)... Ph.D. (thesis, in progress)... letters that represent a young lifetime of work... a formal education nearing completion. But there are still long, arduous examinations to pass, a doctoral thesis to finish... a period in which stress is often converted into the gastrointestinal symptoms of psychic tension. For this kind of patient—with no demonstrable pathology—consider the usefulness of Valium (diazepam).

Valium can help relieve psychic tension and resultant somatic symptoms, within the first day for some patients. Valium is also useful in psychic tension with associated depressive symptoms. And Valium can help relieve psychic tension-induced insomnia with an *h.s.* dose added to the *t.i.d.* schedule.

Valium is generally well tolerated. In proper maintenance dosage it seldom dulls the senses or interferes with functioning. Side effects most commonly reported have been drowsiness, fatigue and ataxia.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms have occurred following abrupt discontinuance. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

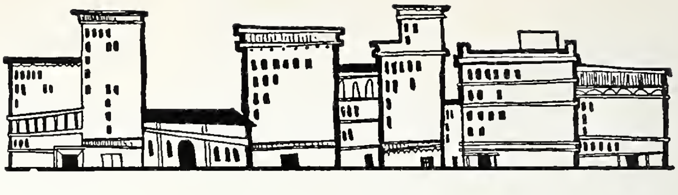
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation, have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Valium® (diazepam)

2-mg, 5-mg, 10-mg tablets
to help relieve psychic tension
and its somatic symptoms

From the Medical Schools



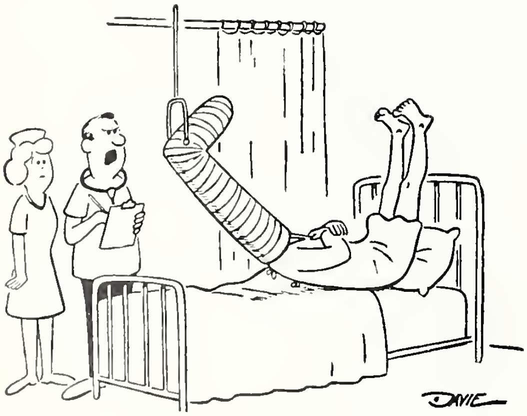
UNIVERSITY OF MISSOURI

The tenth M.D. Day program will be held in Columbia on October 10-11 and will provide an opportunity for practicing physicians to engage in an excellent scientific program. It also is an occasion for medical alumni (and "non-alums") and the faculty of the School of Medicine to get together.

This year, the scientific program will be presented as a joint effort of the medical faculties of the Universities of Nebraska and Missouri. It will present a variety of topics of interest and benefit to the practicing physician, including discussions on the management of adolescents and the complications of longevity. On Friday morning, topics will include "Pregnancy in the Adolescent," "Precocious Sexual Development" and "Delayed Sexual Development in the Female." "The Management of the Elderly" will be a subject for discussion on Friday afternoon.

The annual social hour and dinner meeting of the Missouri Medical Alumni Association will be held on Friday, October 10 at the Tiger Hotel. The classes of 1944, 1959 and 1964 are planning class reunions at this time.

A block of seats has been reserved for M.D. Day participants who wish to attend the Nebraska Cornhuskers-Missouri Tiger football game at 1:30 PM on Saturday. Ticket orders, plus the proper amount for tickets, should be returned to the M.U. Athletic Ticket Office in Columbia before September 10.



"Very funny, Mr. Tupper!"

A buffet luncheon for M.D. Day guests and families will be held at the Medical Center on Saturday following the morning session of the Conference and prior to the football game. The cost will be minimal.

Blocks of rooms have been reserved in several hotels and motels for those planning to attend M.D. Day. For room reservations or further information, interested physicians are invited to contact the Executive Director, Continuing Medical Education, M-175 Medical Center, Columbia, Mo. 65201.

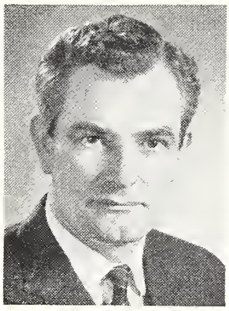
Dr. William D. Mayer, dean of the School of Medicine and director of the University Medical Center, has announced a number of new faculty appointments for the coming academic year.

Six of the appointments are in the Department of Medicine, under the chairmanship of Dr. Charles E. Mengel who named four of the appointees to head specialty divisions within the department. They are Dr. John F. Maher, professor of medicine, division of renal disease; Dr. Gordon C. Sharp, associate professor of medicine, division of immunology and rheumatology; Dr. Daniel H. Winship, associate professor of medicine, division of gastroenterology; and Dr. Patrick H. Henry, associate professor, division of hematology and oncology. Drs. James Duane Dexter and Karl David Nolph have been appointed assistant professors in the department of medicine. Dr. Dexter is a native of Independence and a 1963 graduate of the M. U. School of Medicine.

Other appointments include Drs. John C. Neff and James Esterly, assistant professors of pathology and Dr. John F. Sulzbach, assistant professor of radiology. New appointees to the faculty in the department of surgery are Dr. John Thomas Bonner and David D. Scherr.

Mr. H. Dwyer Dundon has been named chief of occupational therapy and Mrs. Virginia Haines is now chief of medical social services in the University Hospital. Both will hold academic appointments in the department of community health and medical practice. Mrs. Haines has been director of social service for the Jackson County Court in Kansas City for the past two years.

ST. LOUIS UNIVERSITY



Dr. Lind

Dr. A. R. Lind has been appointed professor and chairman of the department of physiology at the St. Louis University School of Medicine. His appointment became effective August 1. Since 1967, he has been director of the Indiana University Medical Center Cardiopulmonary Laboratory at Wright-Patterson Air Force Base and Associate professor of medicine at Indiana University Medical Center.

A native of Scotland, Dr. Lind earned the bachelor of science degree in physiology from St. Andrews University in St. Andrews, Scotland in 1951, and the doctor of philosophy degree in physiology from Oxford University in 1958. He began his career as a physiologist with the Medical Research Council's Tropical Research Unit in Singapore. In 1954, he became the National Coal Board's Research Fellow at Oxford University, attached to the Medical Research Council's Unit for Research in Climate and Working Efficiency, situated in the Department of Human Anatomy at Oxford University.

In addition to his research and administrative background, he has had a wide range of teaching experience, having taught medical and science undergraduate students and graduate students in Oxford, England and Edinburgh, Scotland. Dr. Lind's research interests are in man's responses to environmental stress. His main interests in the field of man's thermoregulation have been in cardiovascular changes, sweat gland responses in aging and setting climatic limits for different kinds of work.

Announcement also was made of the appointment of 13 other medical faculty. The majority of the appointments became effective July 1.

Named professor of microbiology was Dr. Burton M. Pogell, formerly associate professor, department of biochemistry, Albany Medical College of Union University, Albany.

Appointed associate professor of psychiatry was Dr. Bernard Korol, formerly assistant professor of pharmacology in the department of psychiatry at the University of Missouri Institute of Psychiatry.

Four physicians were named assistant professors. They are Drs. Harvey E. Cantor, new assistant professor of neurology; Irwin Schultz, assistant clinical professor of internal medicine; Wilfred Leach, assistant professor of otolaryngology, who is a fellow of the Royal College of Surgeons of England, and Eli R. Shuter, new assistant professor of neurology.

Nine physicians were appointed to the rank of instructor. They are Drs. Kent D. Bealmear, instructor in neurology; Nancy L. Green, instructor in radiology; William A. Jones, instructor in radiology; Donald S. MacNair (Lt. Col., U. S. Army), instructor in pathology; Thomas J. Meirink, instructor in orthopedic surgery; John J. Phillips, instructor in orthopedic surgery; and Frederic M. Simowitz, instructor in neurology.

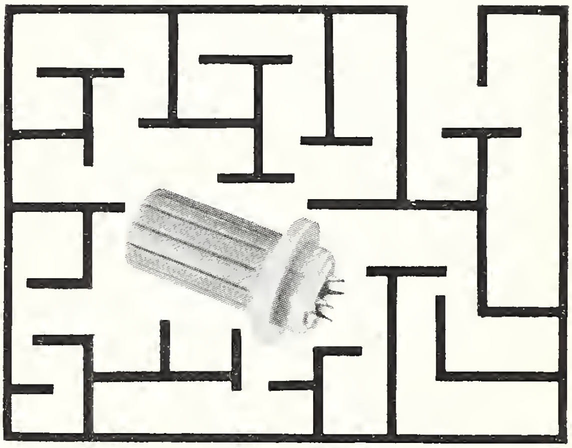
WASHINGTON UNIVERSITY

The National Council to Combat Blindness, Inc., has granted Morton E. Smith, M.D., associate professor of ophthalmology and pathology at Washington University School of Medicine, a $7,480 Fight for Sight Research Award.

Using a scanning electron microscope, Dr. Smith will study the outflow channels of the eye. The microscope gives a three-dimensional view of the surface of tissue in very high magnification.

The National Council to Combat Blindness is a private, non-profit foundation providing funds for eye research.

(Continued on page 759)



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ARDSLEY, NEW YORK 10502

Jackson Johnson Regional Scholarships have been awarded to seven students who are beginning their first year at Washington University School of Medicine in September.

Recipients are Mark Wayne Hosler, Higginsville, University of Missouri, Columbia; Michael Allan McCarty, St. Louis, Washington University; John Scott Black, San Diego, Cal., a graduate of University of California at San Diego; Yvonne Lois Classen, Wichita, Kan., Tabor College; Edwin H. Shuck, III, Lookout Mountain, Tenn., New College; James P. Wilhelm, Post Falls, Ida., University of Idaho; and Robert A. Yanover, Roslyn Heights, N. Y., University of Rochester.

The scholarship fund was established in 1930 when $250,000 was bequeathed to the Medical School by Jackson Johnson, late president of International Shoe Company. Awards are made on the basis of academic record, test scores, recommendations, ability, character and qualities of leadership. Competition is available to entering freshmen or transfers from two-year medical schools.

A graduate program to prepare executives for health agencies is being established at Washington University School of Medicine.

Receipt of a $114,003 grant from the Department of Health, Education and Welfare for health planning has been announced. The grant was approved with recommendations for $662,324 to be received over four additional years.

The program is being instituted to train administrators for health agencies on local, state, regional and federal levels. Directing the program is Robert J. Nelson, assistant director of the Graduate Program in Hospital Administration.

In a cooperative endeavor, students will be offered courses at both Washington University and St. Louis University.

In the first year of operation, six students will receive full tuition plus stipends to cover living expenses. The program is designed to prepare the students to receive the master's degree at the completion of 21 months of graduate-level study that includes three months of practical experience.

By the fifth year it is anticipated that 26 will be enrolled in the program.

Persons wishing information may call Mr. Nelson at 367-6400, station 3277, or may write him at 724 South Euclid Avenue, St. Louis, Missouri 63110.

New Members

(Continued from page 753)

cal Society. Dr. Peake is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1963. He specializes in internal medicine.

Lindsay L. Pratt, M.D., Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Pratt is a native of Camden, N. J., received his preliminary education at Muhlenberg College and his M.D. degree at Jefferson Medical College in 1953. He specializes in otolaryngology.

G. H. Reed, M.D., Tri-County Clinic, Osceola, has become a member of West Central Missouri Medical Society. Dr. Reed is a native of Appleton City, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1963. He is in general practice.

William D. Soper, M.D., 116 South St., Excelsior Springs, has become a member of Clay County Medical Society. Dr. Soper is a native of Plattsburg, received his preliminary education at Baker University and his M.D. degree at the University of Missouri in 1968. He is in general practice.

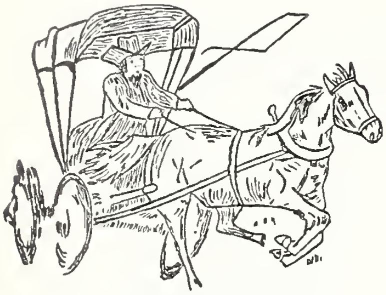
John Torontow, M.D., Nevada, has become a member of West Central Missouri Medical Society. Dr. Torontow is a native of London, England, received his preliminary education at Sherborne and his M.D. degree at the University of Dublin in 1962. He specializes in internal medicine.

George E. Volk, M.D., 11201 Colorado, Kansas City, has become a member of Jackson County Medical Society. Dr. Volk is a native of St. Louis, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1965. He specializes in obstetrics and gynecology.

David D. Zoller, M.D., 101 Memorial Dr., Kansas City, has become a member of Jackson County Medical Society. Dr. Zoller is a native of Tulsa, Okla., received his preliminary education at Wichita State and his M.D. degree at the University of Kansas in 1963. He specializes in pathology.

LEO H. POLLOCK, M.D.

Missouri Medicine in Review



FORTY YEARS AGO

Charles H. Eyerman, M.D., St. Louis, spoke on "The Diagnosis of Allergy" at the 72nd Annual Meeting of the MSMA in 1929. He observed that "the conclusion is inevitable that a complete family history in all suspected cases will afford data in definitely determining allergy in more than 50% of the cases. Clinical and experimental evidence indicates that the skin test is a variable factor and, when positive, merely shows that the skin is positive and the individual is allergic. It does not, at all times, indicate that the allergen giving the positive reaction is responsible for the presenting symptoms. The eosinophilic reaction is quite often generally recognized as a phenomenon of allergy. Failure to demonstrate this reaction is not to be construed that allergy is absent, for one may have sought for eosinophils either at the wrong time or at the wrong place."

Dr. Alexis F. Hartmann, St. Louis, was a guest of the Colorado State Medical Society at its 59th Session held at Greeley, Colo. on Sept. 3-5, 1929 and spoke in the Symposium on Acidosis.

Dr. Emmett P. North, St. Louis, has been elected one of the 14 governors of the Alumni Association of the American Medical Association of Vienna.

The Caldwell County Medical Society met in Breckenridge on Aug. 22, 1929 at two o'clock with the following members present: Drs. G. S. Dowell, Braymer, president; Tinsley Brown, Hamilton, secretary; B. F. Carr and C. H. Wilbur, Polo; E. A. B. Thompson, Breckenridge. Dr. Ralph W. Holbrook, Kansas City, was present by invitation.

Nowhere is scientific thought and even honesty more disregarded than in the pseudobiochemical propaganda inseparably connected with the exploitation of dentifrices and mouth washes. The chief purpose of a dentifrice is to clean the teeth or, more practically, to establish a healthy habit. The balance of evidence is against the view that dentifrices can be used for so-called mouth correction (*Journ. AMA*, p. 899 [March 16, 1929]).

TWENTY-FIVE YEARS AGO

With the granting of a pro forma decree of incorporation to Missouri Medical Service, plans are near completion for the launching of Missouri's prepayment medical and surgical care plan which was approved last spring by the House of Delegates of the MSMA. The plan will be administered through Blue Cross Service. It provides for medical and surgical care for hospitalized cases at a cost to single persons of 85 cents and to families, regardless of their size, of $2.25 per month. Although subscribers must join in groups—professional or trade associations, labor unions or others—the plan is open to everyone. For the present, families will be limited to $1,000 of medical and surgical care in one year.

Among speakers at the Oklahoma City Clinical Society in Oklahoma City on October 23-26 will be Drs. Charles C. Dennie, Lawrence P. Engel and Ralph H. Major of Kansas City and Ralph A. Kinsella and Hugh McCulloch of St. Louis.

There is no limit to the intracacies of the law. War Department Circular No. 205 defines the regulations about venereal disease and sets forth that venereal disease proved to be contracted from spouse is to be regarded as incurred in the line of duty.

Dr. H. S. Miller, Sikeston, spoke on public health at an open meeting in New Madrid on August 25.—Dr. Frank R. Bradley, St. Louis, has been elected President of the American Council of Hospital Administrators.

Dr. Frank R. Bradley, St. Louis, has been elected President of the American Council of Hospital Administrators.

Captain Alphonse McMahon, St. Louis, who is now serving with the Navy, received the Mississippi Valley Medical Society 1944 Distinguished Service Award at the annual meeting of the Society in Peoria on September 28.

The name, The Women's Field Army of the American Cancer Society, has been changed to

"The Field Army" in recognition of the fact that men, as well as women, are vitally concerned in the work.

TEN YEARS AGO

The Ozark Regional Heart Association has elected James T. Brown, M.D., Springfield, as president. Glenn O. Turner, M.D., was elected vice-president.

The *Sikeston Standard* carried a story and picture of Dr. Thomas C. McClure, Sikeston, on the occasion of his completion of 40 years of practice on July 18.

The *St. James Journal* featured a picture and story about A. E. Scott, M.D., St. James, on July 3.

Group Hospital Service of St. Louis elected Mr. Eugene F. Williams, Jr., secretary of the St. Louis Union Trust Company, as chairman of the Board of Trustees at an annual meeting held on June 24. He succeeds Mr. Howard F. Baer, president of the A. S. Aloe Company, St. Louis.

Officers elected in June by the St. Louis Society of Anesthesiologists are Drs. Harry S. Sammons, Kirkwood, president; Donald J. Dickler, St. Louis, vice-president; Jean J. Merz, Frontenac, treasurer; and Roy E. Boggs, St. Louis, secretary.

Groundbreaking ceremonies for the Madison Memorial Hospital, Fredericktown, were held on July 12. Ben M. Bull, M.D., Ironton, attended on invitation to represent the Missouri State Medical Association.

A. Lloyd Stockwell, M.D., Kansas City, will preside as president of the South Central Section of the American Urological Association at a meeting in Denver on September 27-30.

Eighteen physicians attended a dinner meeting of the Audrain County Medical Society at the Country Club in Mexico on Tuesday, June 23. The evening included a social hour, dinner and a scientific program.

A dinner meeting of the Mid-Missouri County Medical Society and the wives of the members was held in the Pine Room of the Greyhound Bus Station in Rolla on July 23.

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SEMI-RETIRED PHYSICIAN—To work in large industrial plant in St. Louis County to do pre-employment examinations and injury cases. Less than 40 hours weekly, depending upon work load; five days weekly. No hospital work, no weekends or night calls. Age is no factor. Contact Box 358, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

PART-TIME PHYSICIAN—Needed for Monsanto industrial plant in central St. Louis. Full nursing coverage and other medical help present. Morning hours. Liberal salary and fringe benefits. If interested, contact Dr. Emmet Kelly, phone 314-OX4-2191.

PHYSICIAN—Emergency room physician needed for 400-bed General Hospital located in St. Louis area. Excellent compensation, paid vacation, 40 hours or less per week. Ideal position for physician beginning practice. Contact Box 360, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

ASSOCIATE WANTED—Attractive opening in St. Louis for young, board eligible urologist. Senior partner is retiring. Contact Box 359, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

INTERNIST AND GENERAL PRACTITIONER—To associate with group of seven physicians representing the major specialties. Top salary two years, then partnership. Two accredited hospitals. Good recreation opportunities and time off. Historic town of 20,000 population on Mississippi River. Contact Box 357, Missouri State Medical Association, 515 East High St., Jefferson City, Mo. 65101.

FOR SALE—Active medical office (general practice) in St. Joseph, Mo. Well equipped: EKG, fluoroscope, etc. Write to Box 356, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

OBSTETRICIANS—Help establish an outstanding OB-GYN Department in a 75,000 population area an hour south of St. Louis. High salary, early partnership, new hospital, excellent community. Contact C. W. Chastain, M.D., Medical Arts Clinic, Farmington, Mo. 63640.

ELEVEN ROOM OFFICE—For rent in large Missouri city. Across from large hospital. Completely equipped. Option to buy office, general and surgical equipment. Write to Box 353, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

ASSOCIATE OR PARTNER—In general practice to share office space in new, ultra-modern office building in Jefferson City, Mo., 30 miles from the University of Missouri Medical Center. Office space also available for Internist, Pediatrician, Dentist, Surgeon or Obstetrician. Overwhelming need for General Practitioner and above specialties. Practice overwhelming after 2½ years. Net income $35,000 to $45,000 annually. If interested call Jefferson City collect—AC 314 635-2542 or 635-2542.

GENERALISTS—Tired of the Solo Rat Race? Medical Arts Clinic in Farmington is expanding its general medicine services. Three minutes from a new hospital in Eastern Missouri's nicest small town. C. W. Chastain, M.D., Farmington, Mo. 63640.

WANTED—Two general practitioners in Clinic with three GP's. Furnished and equipped with x-ray and laboratory. County-seat town of 12,500; 95-bed hospital. Liberal arts college. Contact Aiken, Lawrence & Roehrs Clinic, Marshall, Mo. AC 816-426-5551.

MEDICAL RECEPTIONIST-TYPIST—Age 25-40; three years secretarial experience, preferably in psychiatric or psychological field. Salary commensurate with experience and educational background. Five-day week. Call between 9-12 AM. AC 314 PA 1-0200, Clayton, Mo.

WANTED—General practitioner or pediatrician to join seven-man group. Salary for two years and then partnership. Wyeth Hamilin, M.D., The Hannibal Clinic, Hannibal, Mo. 63401.

FOR SALE—100 MA x-ray unit with Bucky, tilt table and fluoroscope; examining tables; royal chrome reception room furniture; sterilizer and office autoclave; instruments, etc. M.D. retiring. Contact E. Charles Rolwing, M.D., First & Market Streets, Charleston, Mo. 53834. Office phone—1-314-683-6239. Home phone—1-314-683-4750.

COMPLETE OFFICE FURNISHINGS—For sale. Includes three examining rooms available to young physician planning St. Louis area practice. Can be seen at Mound City Medical Center, 2715 Union Blvd., St. Louis. Price is reasonable. Mason D. Cloyd, M.D., Room 1504, 3800 Newark St., N.W., Washington, D. C. 20333.

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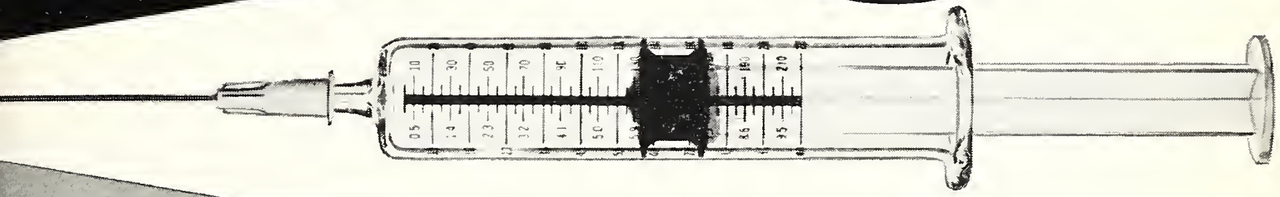

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MSMA News

Attention Called To Legislative Report For Year

Missouri State Medical Association President Doyle C. McCraw, M.D., Bolivar, has called the attention of all members of the Association to a recent report of the Committee on Legislative Matters sent out in a special mailing.

Dr. McCraw urged physicians to read the report in its entirety. According to the Association President, "The length of the report points up the great volume of health-oriented legislation introduced this year in the General Assembly."

He said that the report stresses how important it is for every physician to become interested in the work of the General Assembly and to be able to discuss specific health legislation with his own Senator and Representative.

The report was mailed to all members of the Association in mid-September.

Don't Miss
The 112th Annual
MSMA MEETING
April 2-5, 1970
Kansas City

Meeting Jan. 31, Feb. 1, 1970

Senator Eagleton Will Be Guest Speaker At Officer's Conference

United States Senator Thomas F. Eagleton has accepted an invitation to be the banquet speaker for the Third Annual Missouri State Medical Association's County Society Officer's Conference on Saturday night, January 31, 1970 at the Ramada Inn, Jefferson City.

The conference opens at 1:45 p.m. that day and continues until Sunday noon, February 1, according to Walter T. Gunn, M.D., chairman of the MSMA Public Service Committee, sponsor of the meeting.

Dr. Gunn said that other program participants will be announced in the near future.

Senator Eagleton was elected to the United States Senate last November and in December was appointed to the Senate by Governor Warren E. Hearnes. Thus, he is first in seniority among senators elected late last year.

Eagleton Native St. Louisan

A native St. Louisan, Senator Eagleton graduated from Country Day School, received an A.B. degree from Amherst College and an LL.B. degree from Harvard Law School. He served two years in the United States Navy.

After graduating from Law school, he entered into the private practice of law with his father, Mark D. Eagleton. He was elected as St. Louis Circuit Attorney in 1956. In 1960 he was elected as Missouri's Attorney General. In 1964, he was elected as the state's Lieutenant Governor.

Senator Eagleton's awards and honors include: Furtherance of Justice Award from the National District Attorneys Association; president of the Missouri Prosecuting Attorney Association; member of the Board of Directors of the National District Attorneys Association; Civil Liberties Award from the St. Louis Civil Liberties Committee; Distinguished Service Award from the St. Louis Junior Chamber of Commerce; Distinguished Service Award from the Clayton Junior Chamber of Commerce.

Additional Honors Listed

Also Civic Award from Alpha Kappa Psi of the St. Louis University School of Commerce and Finance; recognized in 1962 by LIFE magazine as one of the Top 100 Young Leaders in the United States; elected as a member of the Board of Directors of the National Association of Attorneys General; nominated by the St. Louis Junior Chamber of Commerce as one of the country's Ten Outstanding Young Men; Bicentennial Award of Public Service from the Bar Association of St. Louis City; Award of Honor from the Lawyers Association of St. Louis; Award of Merit for distinguished service in the legislature from the Bar Association of St. Louis City and the Public Service Award from Boys Town of Missouri.

St. Louis Medical Society Entertains Students, Guests At Big Reception

More than two hundred medical students, their wives, husbands or dates from St. Louis University were guests of the St. Louis Medical Society at a reception and buffet dinner on Sunday night, September 14 at the Society's headquarters building on Lindell Blvd.

Hubert Ritter, M.D., President of the Society, welcomed the students and guests. He introduced some of the officials of the St. Louis Society as well as student guests who participated in making arrangements. Dr. Ritter said he hoped the Society would be able to make the event an annual affair.

Approximately 75 physician members of the Society and their wives were on hand to welcome the students and their guests and to visit with them during the evening.

A musical combo provided dance music (1969 style) for those attending.

The affair was the first for the St. Louis Society in a move to provide closer liaison between today's physicians and medical students.

A number of other medical societies in Missouri are holding or plan to hold similar affairs for the medical students from their communities.

The Missouri State Medical Association House of Delegates, meeting last March, passed a resolution calling for closer liaison with medical students. Copies of the resolution along with a list of medical students from their areas have been mailed to all county medical societies in Missouri at the direction of the MSMA Council.

At St. Louis Society Student Night

Hubert Ritter, M.D., President of the St. Louis Medical Society, third from left in the top photo, gave the welcoming address to medical students from St. Louis University and their guests at a reception and buffet held on September 14 at the headquarters building of the St. Louis Society. In the photo with Dr. Ritter are Mrs. Gertrude Franklin, wife of MSMA's treasurer and St. Louis Society member Max Franklin, M.D.; Robert H. Felix, M.D., Dean of the St. Louis University Medical School; and two unidentified medical students. The bottom photo shows students and guests going through the serving line for the buffet. More than 200 students along with guests and physicians attended the reception and buffet.

New Books Available On Drugs, Alcoholism

The attention of Missouri physicians is called to two recent publications of the American Medical Association in the field of alcoholism and drug abuse.

One of the books is entitled, "Drug Dependence — a Guide for Physicians." The other is entitled "Manual on Alcoholism."

Both books may be ordered from the Order Unit, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.

Special Article

Drug Dependence—Challenge and Response

RONALD J. CATANZARO, M.D.,[*]
Jefferson City

Although best estimates indicated that 160,000 adults in Missouri were alcoholics, no specific effort had been made to meet this problem until mid-1966 when Gov. Warren E. Hearnes initiated a new statewide alcoholism program as part of the Division of Mental Diseases. Later, in the summer of 1968, this program was expanded to include the 600 to 2,000 hard core narcotic addicts in the St. Louis area. The author presents a review of the broad framework of drug-dependency problems and describes the logical statewide program that has been developed in Missouri to meet these and related problem areas. He emphasizes that the understanding and participation of private physicians in Missouri is essential to the success of these programs. This paper was presented originally by Dr. Catanzaro at the 111th Annual Session of the Missouri State Medical Association in St. Louis.

THE MOST FRUITFUL PLACE to begin a discussion of abuse of any individual drug is to view the misuse of this drug as part of a broad problem involving misuse of dependency-produced drugs in general.

Appropriate here are the following two quotations from the most recent report of the World Health Organization Expert Committee on Addiction-Producing Drugs:

> "There is scarcely any agent which can be taken into the body to which some individuals will not get a reaction satisfactory or pleasurable to them, persuading them to continue its use even to the point of abuse—that is, to excessive or persistent use beyond medical need. Probably the only exceptions are agents that have incidental or side effects that prevent such use—for example, cumulative or early toxic effects, to which the individual does not become tolerant."

The report continues as follows:

> "Drug dependence is a state of psychic or physical dependence, or both, on a periodic or continuous basis. The characteristics of such a state will vary with the agent involved, and these characteristics must always be made clear by designating the particular type of drug dependence in each specific case; for example, drug dependence of morphine type, of alcohol-barbiturate type, of amphetamine type, etc."[1]

TYPES OF DRUG DEPENDENCIES

The major types or categories of drug dependence, which term has replaced both the terms of "drug addiction" and "drug habituation," are as follows:

Morphine (heroine, meperidine (Demerol), codeine, paregoric)
Alcohol—Barbiturate—Sedative—Tranquilizer
Cocaine
Cannabis—(marihuana)
Amphetamine—(dextroamphetamine [Dexadrine], methamphetamine (methedrine))
Khat
Hallucinogens—(LSD, STP, morning glory seeds, nutmeg, betelnut)
Organic Vapors—(glue, toluene, acetone, gasoline, paint thinners, freon)
Nicotine—(cigarettes, cigars)
Caffeine—(coffee, tea, colas)

It should be noted that of all the dependency-producing drugs, the only categories that produce true physical dependence, in addition to psychological dependence, are the morphine and alcohol-barbiturate related groups. All others produce psychological dependency only.

Use of the above drugs tends to take place most often in fairly well definable socioeconomic and age groups as follows:

---

[*] Dr. Catanzaro was Associate Director, Missouri Division of Mental Diseases (Alcoholism and Drug Abuse Program) and Associate Professor of Psychiatry, University of Missouri School of Medicine at the time this paper was written. He is now in the private practice of psychiatry in West Palm Beach, Fla.

Group I—Alcohol, barbiturates, etc.: all economic groups, some abuse during teens and 20's, addiction during 30's and 40's.

A quite useful concept to keep in mind regarding Group I drug abusers is the concept of "alcohol and related addicting drugs." This means drugs whose subjective and physical effects on the individual are quite similar in nature even though the chemical formulas of the drugs vary widely. These drugs demonstrate cross tolerance, i.e., if a person is addicted to one of these drugs, his withdrawal reaction can be modified or completely prevented by use of any other of the drugs in this group. A list of these drugs is as follows:[2]

Alcohols (ethyl, methyl, etc.)
Barbiturates (phenobarbital, pentobarbital [Nembutal], etc.)
Paraldehyde
Chloralhydrate
Glutethimide (Doriden)
Ethinamate (Valmid)
Ethchlorvynol (Placidyl)
Methyprylon (Noludar)
Meprobamate (Miltown)
Diazepam (Valium)
Chlordiazepoxide (Librium)
Vistaril Hydroxyzine (Vistaril)

Group II—Morphine, marihuana and organic vapors: lower socioeconomic minority groups in their teens, 20's and 30's. Also professionals in medical-related fields in their 30's and 40's.

Group III—Hallucinogens, marihuana, dextroamphetamine (Dexidrene): middle and upper socioeconomic groups in their teens and 20's.

Group IV—Nicotine, caffeine: all economic groups, lifelong beginning in teens, rarely develops debilitating dependence.

Attacking the Problem in Our Community

The Missouri Alcoholism and Drug Abuse Program, in accordance with the above conceptual framework, has proceeded to attack the problem of drug dependence by designing specific programs for each group of drug abusers rather than by having one program for all drug abusers or a separate program for abusers of each individual drug.

It also is understood in the above grouping of drug abusers that the mentioned drugs which are abused by each group are not necessarily the only drugs which that group abuses. They are simply the main drugs which are abused by this group. Much crossover of drug abuse has been occurring in the last five years so that it is becoming more common for all economic and ethnic groups to abuse all dependency producing drugs.

Program for Group I Drug Abusers

Alcoholism

In the summer of 1966, Warren E. Hearnes, the Governor of Missouri, called for a major assault on Missouri's third most prevalent health problem, alcoholism. In spite of the fact that best estimates indicate that 160,000 adults in Missouri were alcoholics no special effort had ever been made to meet this problem.

The Division of Mental Diseases was directed by the Governor to establish a statewide alcoholism program. The new State Alcoholism Program consists of the following:

A. *Eight Alcoholism Treatment Centers* are located at Missouri's five state hospitals and three mental health centers. These facilities comprise approximately 350 beds and active outpatient services. Main elements of therapy are group and individual therapy, alcoholics anonymous and patient government.

B. A *Detoxification Center* operated at St. Louis State Hospital in conjunction with the St. Louis City Police Department. This facility is primarily for skid-row type alcoholics arrested on the street for public drunkenness. After receiving a seven day detoxification program, the patients are referred to other agencies for follow-up care.

C. *An Alcoholism Counselor Training Program* conducted in conjunction with the Alcoholism Center at the Mid-Missouri Mental Health Center. Most of the counselors trained are recovered alcoholics with special aptitude for counseling and working as a member of a treatment team.

D. *A Statewide Alcoholism Information and Education Service* closely coordinated with each of the eight treatment centers. Special summer schools and seminars have been held for continued staff training. In the fall of 1969, the first public workshop will be held to educate and bring together key citizens in the community. A great variety of films and literature is available for use by any citizens' group in Missouri.

E. A soon-to-be-opened new *Research Wing* at the Missouri Institute of Psychiatry. This wing contains a specially designed, 17 bed research ward and laboratory space for biochemical, neurophysiologic and related research activities.

F. Establishment of a *Governor's Interagency Committee on Alcoholism* which is actively planning major revisions of the eight largest state agencies in regard to helping rehabilitate alcoholics seen by their agencies.

G. Establishment of *Rural Referral Stations* which are small outpatient and educational facilities located in outlying rural parts of Missouri.

H. Establishment of a *Governor's Advisory Council on Alcoholism* composed of 12 leading citizens of Missouri who have greatly aided in directing the program and in the legislative support necessary.

PROGRAM FOR GROUP II DRUG ABUSERS

Narcotics

In the summer of 1968, a five year demonstration grant was received by the Missouri Division of Mental Diseases Alcoholism and Drug Abuse Program in conjunction with the Missouri Institute of Psychiatry to establish a treatment program for narcotic addicts.* The total amount of this federal grant is $2.8 million over five years with the understanding that Missouri would then take financial responsibility for continuing the program. The program was aimed initially and primarily at hard core narcotic addicts in the St. Louis area, which number has been estimated to be between 600 and 2,000. Support of each addict's "drug habit" costs him between $50 and $100 a day. This money usually is raised by stealing by male addicts and by prostitution by female addicts. Since the addict will receive only between one fourth and one tenth of the retail value of the merchandise stolen, they must steal a great quantity of goods each week in order to be regularly supplied with drugs. Thus, narcotic addiction represents one of the major reasons for crime in our cities today.

The federally-funded Narcotic Demonstration Project presently in operation is divided into the following four parts.

A. A *20 bed Acute Treatment Center* located at the Missouri Institute of Psychiatry in St. Louis. Patients are withdrawn from the narcotic to which they have become addicted and are placed on methadone, a synthetic, less-addicting narcotic substitute. They receive a dose of 60 mg to 100 mg of methadone each day. This drug apparently acts to block the physiologic receptors for other more potent narcotics. Methadone itself does not give an appreciable feeling of exhilaration or kicks and, also, blocks the usual effects of heroine. Thus, the narcotic addict has little compulsion to return to the use of heroine when discharged from the hospital. Also, group and individual therapy, vocational rehabilitation and other similar therapeutic measures are available. Follow-up after discharge for continued daily methadone maintenance and urine analysis for drugs other than methadone is essential.

B. *A Half-way House* (known as Opportunity House), located at the fringes of the Negro ghetto area in St. Louis, is available for addicts who are willing to undergo the "cold turkey" drug withdrawal method and who are trying to stay off all narcotics including methadone. It is run by the Narcotic Service Counsel of St. Louis, called NASCO, in cooperation with the narcotic demonstration project. NASCO is a private citizen's organization whose main purpose is to rehabilitate narcotic addicts.

C. *A Crisis Clinic* (or Store Front Clinic) is located in the heart of the Negro ghetto area, the old gaslight entertainment area to be specific, which is the center of the narcotic traffic

PSYCHIATRY
BillO'Malley

"I'm having trouble with my 2-iron, my 3-wood, my putter and my wife!"

---

* The Project Director was Raymond Knowles, M.D., who now is the Director of the Alcoholism and Drug Abuse Program of Missouri.

in St. Louis. Patients may walk off the street directly into the Crisis Clinic for outpatient emergency help or follow-up care after discharge from the inpatient program.

D. *A Residential Center,* not yet established, to be located in a rural area of St. Louis County for long term treatment (six months or more) when shorter treatment has failed.

This demonstration project will eventually form the nucleus of similar facilities to be established in Kansas City and elsewhere in the state, where indicated. Cooperation with many other legal and social agencies is essential for success of this program.

Program for Group III Drug Abusers

Hallucinogens, Marihuana, etc.

This group is predominantly made up of high school and college students, many of whom experiment with occasional use of marihuana, LSD, methamphetamine, etc. and a few of whom actually become psychologically dependent upon these drugs. These drugs produce no physical dependence, only psychologic dependence.

Efforts to attack this problem mainly are directed toward educational seminars, lectures, pamphlets, etc. which are presented to the student body of individual schools. Sporadic cases of severe psychiatric complications following use of drugs by this group are treated by all eight major hospitals of the Missouri Division of Mental Diseases. Plans are being laid to open a small special ward which will be available on a statewide basis for these patients.

The Tarkio Project was the first major drug workshop for a college in Missouri. It was held at Mid-Missouri Mental Health Center in February of 1969 for a representative group of 50 students at Tarkio College. This small private Missouri college, after a series of arrests of a number of members of its student body for marihuana possession, set the student government to work with the Missouri Alcoholism and Drug Abuse Program to plan and present a factual workshop on drug abuse to its students. The workshop was very well received and similar projects are planned for other college and high school campuses in the state. Estimates of abuse of marihuana by student bodies run from 10% to 50%, but in either case represents an urgent problem. LSD and other drugs for kicks are much less frequently used and some indications are that their use is on the wane.

Program for Group IV Drug Abusers

Caffeine and Nicotine

No special state program has been established in Missouri for either of these last two categories. National educational efforts regarding cigarette smoking already has had considerable impact and other areas of drug abuse have appeared much more pressing in their need for attention by the state program.

Summary

A review of the broad framework of drug-dependency problems has been presented and a corresponding logical statewide program to meet these related problem areas has been developed. An essential part of the success of these programs is the understanding and participation of the private physicians in Missouri. It is hoped that the above review will be of aid in advancing this cooperation.

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ROBERT BURSTEIN, M.D.,* *St. Louis*

Maternal Welfare Committee Report for 1968

Since 1920, the maternal mortality rate has gradually declined in the United States from 68 deaths per 10,000 live births in 1920 to the present level of 3.2 deaths per 10,000 live births (Table 1).[1] The tremendous decline was secondary to the improvement in obstetrical care at delivery, as well as through the entire prenatal course, the improvement in anesthesia, the development of antibiotics and the institution of blood replacement. Although hemorrhage, toxemia and infection are still among the most important causes of death, they no longer dominate, in some reports, the list of causes of maternal death as in years past.

TABLE 1

MATERNAL MORTALITY RATES IN U. S.

(Maternal Deaths per 10,000 live births)	
1920	68.0
1930	63.6
1940	37.6
1945	20.7
1950	8.3
1955	4.7
1960	3.7
1965	3.2

Further reduction in maternal loss probably will be related to the education of patients and physicians and to the elimination of deficiencies in hospital obstetrical, laboratory and anesthesia departments. Patients can be alerted to the need for prenatal care and to the need for seeking medical advice at the onset of problems and not to disregard them or delay in seeking medical attention. The greater number of babies delivered in the United States are still delivered by physicians who are not specially trained as obstetricians. These physicians must be made aware of newer technics and forms of therapy. Finally, hospitals should be informed of recommendations to upgrade the services offered by their obstetrical service, blood bank and division of anesthesia so that these departments can offer maximum assistance, particularly at times of emergency.

A Maternal Mortality Committee can serve these functions. Although primarily established to review maternal losses, a secondary and more important committee role is that of providing education of doctors and hospital administrators, to determine the cause of death and what factors could be corrected to prevent future fatalities.

This is the role of the State Maternal Mortality Committee—to analyze the maternal deaths in the state of Missouri in which a doctor of medicine was in attendance and to analyze the data for educational purposes in an attempt to reduce the maternal mortality. The Committee is divided into two divisions, the East and West under the auspices of the St. Louis Gynecologic Society and the Kansas City Gynecologic Society. Each division reviews the deaths in its own community as well as the corresponding half of the state. Copies of death certificates for review are forwarded by the Bureau of Maternal and Child Health of the Division of Health of the state of Missouri to the appropriate maternal mortality committee. A member of the Committee reviews the hospital record and discusses the case with the physician involved. The findings are then reviewed by the full Committee and appropriate classifications and recommendations are made. The records kept are such that the physician and patient remain anonymous. Above all, the Committee does not wish to be involved in any punitive action.

In this study, the following terms were utilized:[2] (1) A *direct obstetrical death* is defined as a death resulting from complications of the pregnancy itself, from intervention elected or required by the pregnancy or resulting from the chain of events initiated by the complications or the intervention; (2) An *indirect obstetrical death* is defined as a death resulting from disease present before or developing during pregnancy (not a direct effect of the pregnancy) which was obviously aggravated by the physiological effects of the pregnancy; (3) A *nonrelated death* is defined as a death occurring during the pregnancy or within 90 days of the termination from causes not related to the pregnancy or to its complications or management.

---

* Dr. Probst is from the Department of Obstetrics and Gynecology at St. Louis University School of Medicine and Dr. Burstein is from the Department of Obstetrics and Gynecology at the Washington University School of Medicine.

Each year, the MSMA Committee on Maternal Welfare reviews and publishes the annual report on maternal mortality in Missouri which is compiled jointly by the Maternal Mortality Committees of the St. Louis Gynecologic Society and the Kansas City Gynecologic Society. Each of these committees reviews the maternal deaths in its own community as well as the corresponding half of the state. This is the report for 1968.

This report covers the period from Nov. 1, 1967 to Dec. 31, 1968, inclusively, and constitutes the 15th annual report of the Maternal Mortality Committee. A direct comparison with previous committee reports will not be possible since this report covers a 14-month period. At the 1968 meeting of the State Committee on Maternal Welfare, the reporting period was changed from November 1 through October 31 to the calendar year, thus necessitating the 14-month report at this time.[3]

During this reporting period, there were 36 maternal deaths of patients cared for by doctors of medicine, of which 21 occurred in the eastern half of the state and 15 in the western half. This gave a maternal mortality rate of 4.2 per 10,000 live births on the basis of 85,995 births in the state. Seventeen of the deaths were obstetric deaths. Of these, eleven occurred in the eastern portion. The remaining nonrelated maternal deaths were almost equally divided between the two sections of the state. The corrected obstetric death rate was 2.1 per 10,000 live births (Table 2).

TABLE 2

MATERNAL MORTALITY IN MISSOURI 1967-1968

Total Number	36
Geographic Distribution	
Eastern Missouri	21
Western Missouri	15
Gross Maternal Death Rate per 10,000 Live Births*	4.2
Gross Maternal Death Rate per 10,000 Live Births (M.D.)	4.7
Obstetric Deaths	17
Eastern Section	11
Western Section	6
Non-related Deaths	19
Eastern Section	10
Western Section	9
Obstetric Death Rate per 10,000 Live Births	2.1
Obstetric Death Rate per 10,000 Live Births (M.D.)	2.2

* 85,995 births.

These figures compare favorably with the last reporting period in which there were 33 maternal deaths in the 12-month period.[3] Twenty-five were classified as obstetrical deaths with a noncorrected maternal mortality rate of 4.5 per 10,000 live births. Thus, the 17 obstetrical deaths in a 14-month period was an improvement with the corrected rate of 2.1 versus 3.4 for the earlier period.

The means by which the above figures have been derived has been constantly used in all previous reports of this Committee. However, further corrections should be made inasmuch as this Committee does not review maternal deaths in which a doctor of medicine was not in attendance. Yet, the total number of live births in the state is used for the calculation. In the year 1968, there were 73,946 live births in the state of Missouri. The figures for the number that were attended by doctors of osteopathy, midwives and others is not available at this time. However, in 1967, there were 74,823 live births of which 67,052 or 90% had a doctor of medicine in attendance. Therefore, since the figures of the past several years have been fairly consistent, we can interpolate that approximately 77,395 of the 85,995 deliveries covered in this report were performed by physicians of medicine. Thus, the maternal death rate would be 4.7 per 10,000 and 2.2 per 10,000 for the corrected rate.

Another interesting observation can be made if the figures are evaluated on the basis of race. Approximately 15% of all births in the state of Missouri are Negroes. Yet, 14 or 39% of the maternal mortalities in the state of Missouri occurred in the Negro group. Six of these 14 deaths were obstetrical and five of these were considered preventable. The obvious conclusion for these figures is that there is need for improved medical care and education amongst this segment of our population (Table 3).

The obstetrical deaths can be grouped into several categories. Five of the 17 or 29% were

TABLE 3

NEGRO MATERNAL MORTALITY FIGURES
STATE OF MISSOURI 1967-1968

Total deaths	14
Percentage of total deaths	39%
Percentage of total births in Missouri	15%
Non-related deaths	9
Obstetrical Negro deaths	6
Preventable obstetrical deaths	5

TABLE 4

OBSTETRIC DEATHS—EAST

- Infection—4
  - Bacterial shock—2
  - Induced abortion
  - Septic pulmonary embolism
- Eclampsia—1
- Hemorrhage—2
  - Abruptio placenta
  - Postpartum at home
- Other—5
  - Electrolyte imbalance—2 (hyperemesis)
  - Acute sickle cell crisis
  - Acute tubular necrosis due to abruptio
  - Acute pulmonary edema post C-section, etiology unknown

TABLE 6

NONRELATED DEATHS EASTERN SECTION

1. Metastatic adenocarcinoma of the lung
2. Pulmonary embolism
3. Gunshot wound of the chest
4. Toxic encephalopathy due to drug ingestion
5. Subarachnoid hemorrhage—2
6. Death due to an automobile accident
7. Acute heart failure due to primary pulmonary hypertension
8. Acute pulmonary edema due to RHD

due to infection. In this group, there were two endotoxic shock deaths and one each of overwhelming septicemia, induced abortion and septic pulmonary embolism. There were four deaths (24%) due to hemorrhage. These were secondary to an abortion, an ectopic pregnancy, an abruptio placenta and a postpartum hemorrhage at home. There also were two deaths due to eclampsia for an incidence of 12% and two deaths which were attributed to anesthesia on the basis of drug reactions. In addition, there were two deaths on the basis of electrolyte imbalance which had hyperemesis as the etiology. Single deaths occurred secondary to acute sickle cell crisis, acute tubular necrosis following an abruptio placenta and, finally, a death on the basis of acute pulmonary edema post-cesarean section, etiology unknown (Tables 4 & 5).

In reviewing the maternal mortalities, the Committee was assisted by the autopsy material that was obtained in 12 of the 17 obstetrical deaths. The overall autopsy rate for the 36 maternal mortalities was 78%. This information, in combination with material obtained from the records and discussions with physicians, led the Committee to conclude that 12 of the 17 obstetrical deaths were preventable. Although in three instances the patient alone was at fault, in nine of the obstetrical deaths the Committee felt that the physician bore some of the responsibility in the fatality. This preventability rate of 71% has remained constant throughout the years.

TABLE 5

OBSTETRIC DEATHS—WEST

- Infection
  - Overwhelming septicemia
- Anesthesia—2—drug reaction
- Eclampsia—1
- Hemorrhages
  - Abortion
  - Ectopic

Of the 18 unrelated maternal deaths, four were caused by subarachnoid hemorrhages and two followed automobile accidents. Other causes responsible for one death each are listed in Tables 6 & 7.

Summary

Thirty-six maternal deaths occurred in the state of Missouri in which a physician was in attendance with a resultant death rate of 4.2 per 10,000 live births. These figures show an improvement over the preceding reporting year since a change in reporting periods resulted in a review of a 14-month period. Of the deaths that occurred, only 17 could be classified as obstetric when the cases were reviewed by the Maternal Mortality Committees. Of these 17, five were due to infection, four were due to hemorrhage and two each were secondary to eclampsia and anesthesia. The remainder were due to various other problems.

Of greater importance than the cause of death is the finding that 12 of the 17 obstetric deaths were preventable. If some value is to be ob-

TABLE 7

NONRELATED DEATHS WESTERN SECTION

1. Subarachnoid hemorrhage—2
2. Hepatic necrosis
3. Volvulus w/infection
4. Ruptured aorta
5. Ruptured viscus due to auto accident
6. Influenza, pneumonia
7. Pancreatitis
8. Heart failure

tained from a Maternal Mortality Study, should we not report and analyze all maternal mortalities in the state rather than those treated by doctors of medicine?

The National Bureau of Vital Statistics recommended that the space on the death certificate which requested knowledge of current or recent obstetrical status be removed. The Bureau of Vital Statistics of the state of Missouri conformed to this recommendation. Since the new death certificates have been utilized, the number of maternal deaths which have been brought to the attention of the Division of Maternal Health of the state of Missouri has dropped precipitously. Plans have, therefore, been made to change the death certificates back to their former status.

WE URGENTLY REQUEST ALL PHYSICIANS IN THE STATE OF MISSOURI TO NOTE ON THE EXISTING FORMS OR TO CHECK THE APPROPRIATE PLACE IN THE NEW FORMS SO THAT THE BUREAU OF VITAL STATISTICS WILL BE ABLE TO RECOGNIZE ALL MATERNAL MORTALITIES THAT OCCUR IN OUR STATE.

Bibliography

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2. A Guide for Maternal Death Studies: Committee on Maternal and Child Care of the Council on Medical Service, American Medical Association, 1957.

3. Jonas, Harry S.: Maternal Welfare Committee Report for 1967, Missouri State Medical Journal 65:885, 1968.

MAGP To Meet At Lake of the Ozarks

The Missouri Academy of General Practice will held its 21st Annual Scientific Assembly at The Lodge of the Four Seasons, Lake of the Ozarks, on October 24-26.

Following the theme of "Golf—The MAGP Open," the Academy officials have planned a program for the enjoyment and education of each member of the Academy and his family.

The preconvention golf tournament, cochaired by Drs. Preston C. Hall and Lois C. Wyatt, will begin at 12-noon on October 24. Prizes will be awarded to all participating in the tournament.

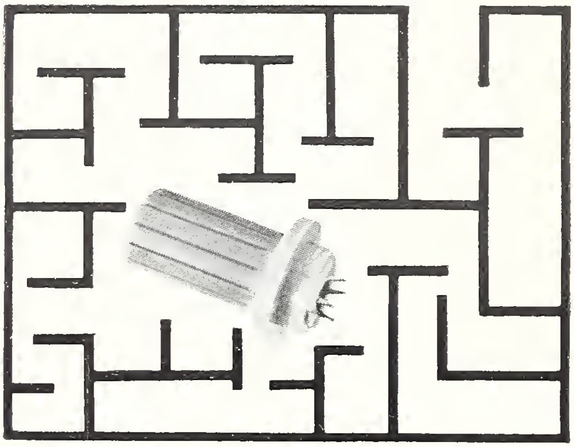
Outstanding scientific sessions, arranged by the Education Committee, are scheduled for Saturday and Sunday. The program on Saturday morning will deal with the injured patient and emergency room care and treatment. On Saturday afternoon, the program will feature talks regarding the medical aspects of disability. "Problems of Our Day" will be the theme on Sunday morning.

One of the highlights of Sunday afternoon's program will be a panel discussion on "Population Control—Moral, Social and Religious Aspects."

Special luncheons and entertainment have been planned for the wives, and there will be a joint luncheon for the wives and husbands on Sunday.

The annual President's Installation Banquet on Saturday evening will include an address by Edward J. Kowalewski, M.D., President of the American Academy of General Practice. Entertainment will be provided by the Kansas State Singers, an outstanding group from Kansas State University.

Sophomore medical students from the University of Missouri have been invited as guests of the Academy for the scientific programs and the president's banquet on Saturday.



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References: 1. Danhof, I. E.: Report on file. 2. Hoon, J. R.: Arch. Surg. 93:467 (Sept.) 1966.

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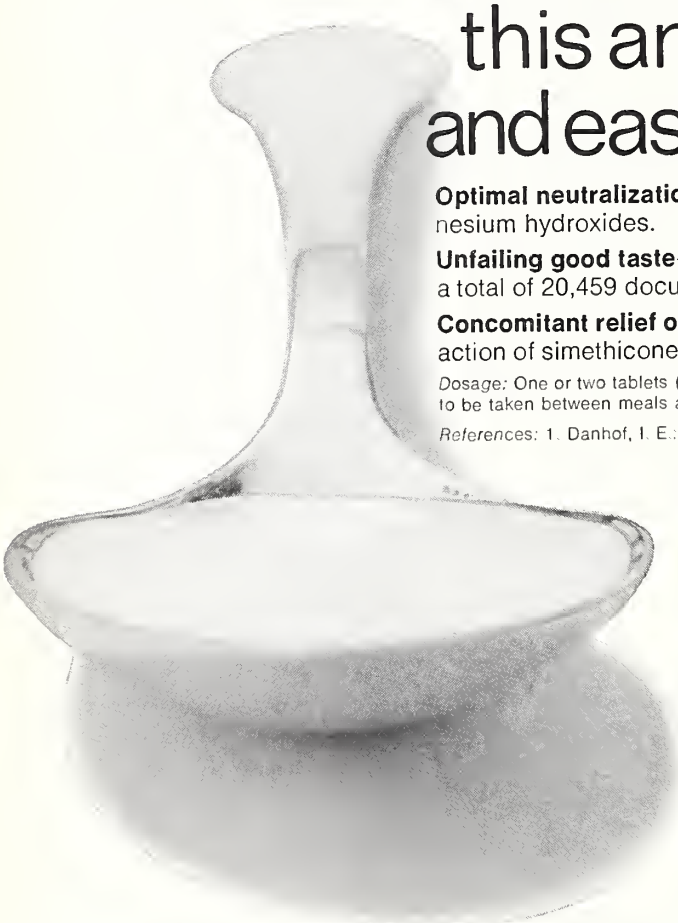


WASHINGTON

A Food and Drug Administration advisory committee found oral contraceptives to be "safe," but reported that British and U. S. studies had established "an etiologic relation between thromboembolic disorders" and their use.

The Advisory Committee on Obstetrics and Gynecology, making its second report on oral contraceptives, said that their benefits outweighed the risks sufficiently to designate them "safe" within the intent of the federal law.

As for the potential carcinogenity of oral contraceptives, the report said no conclusion could be drawn at this time.

The committee called for intensive research along three lines: (1) possible relationship of hormonal contraceptives and carcinoma of the breast and uterus, (2) determination of the basis and prognosis of metabolic alterations produced by hormonal contraceptives and (3) development of new methods of contraception.

The committee, in its initial report three years ago, approved of oral contraceptives with reservations. It now said that these reservations appear to have been justified because of the adverse reactions reported in both scientific literature and the general press. But the report concluded:

"When these potential hazards and the value of the drugs are balanced, the committee finds the ratio of benefit to risk sufficiently high to justify the designation safe within the intent of the legislation (Kefauver-Harris Amendments of 1962)."

The report said that scientific studies "suggest that the mortality from thromboembolic disorders attributable to the oral contraceptives is about three per 100,000 women per year, adding less than 3% to the total age-specific mortality in users of these drugs." In a U. S. study, the risk of thromboembolism to a woman using hormonal contraceptives was estimated by indirect methods to be 4.4 times that of a non-user.

The report said there is no evidence that any metabolic alterations induced by the oral contraceptives pose serious health hazards.

The effectiveness of oral contraceptives was found to be significantly higher than for intrauterine devices or traditional methods.

* * *

Abandoning a long court fight, the Internal Revenue Service reversed itself and ruled that organizations of physicians authorized under state professional association laws will be treated as corporations for tax purposes.

The IRS announced that it would not appeal to the Supreme Court two recent decisions by U. S. courts of appeal favoring the professional association. In accordance with these court decisions, the IRS said, "Organizations of doctors, lawyers and other professional people organized under state professional association acts will, generally, be treated as corporations for tax purposes."

Forty-two states have such laws which offer tax benefits, including deferment of the tax on pension plan contributions until retirement.

The court controversy over IRS treatment of the professional associations for tax purposes dated back to the early 1950's. It was given a "Kintner" label in 1954 when an appeals court ruled in favor of the professionals in a case brought by Arthur Kintner, M.D., Missoula, Mont.

* * *

The federal government has started a program designed to increase enrollment in the nation's schools of medicine and osteopathy by 4,000 over the next four years.

Known as the Physician Augmentation Program, the activity, under the Department of Health, Education and Welfare, supports the addition of 1,000 first-year places commencing with the fall term of 1970. These places are in addition to any increase to which the schools have already committed themselves. Total enrollment through this program is expected to be about 4,000 in the fourth year of operation. The Physician Augmentation Program is authorized under the Health Manpower Act of 1968.

Grants will be awarded on a national competitive basis to those schools of medicine and osteopathy that document their intention to institute a major increase in their first-year enrollment and that appear to have the greatest potential for achieving major increases with their own resources as supplemented by funds allocated by the program.

Robert H. Finch, Secretary of Health, Education and Welfare, proposed that state medicaid administrators work more closely with state medical societies on cost control in the federal-state health care program.

He also said that the states should review more claims in efforts to control medicaid costs.

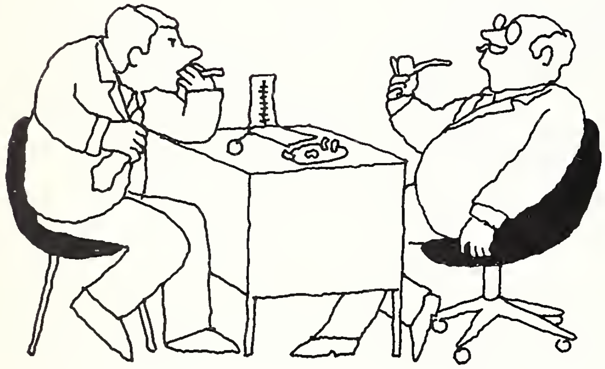
Finch gave his views on controlling medicaid costs in a letter to Sen. Abraham Ribicoff (D., Conn.) who had asked what was being done and what additionally could be done about rising expenditures in the program.

In answer to a question regarding what states "could be doing under existing law to control medicaid costs more efficiently," Finch said:

"One answer is to spend more money on the

(Continued on page 789)

The Apprehensive Hypertensive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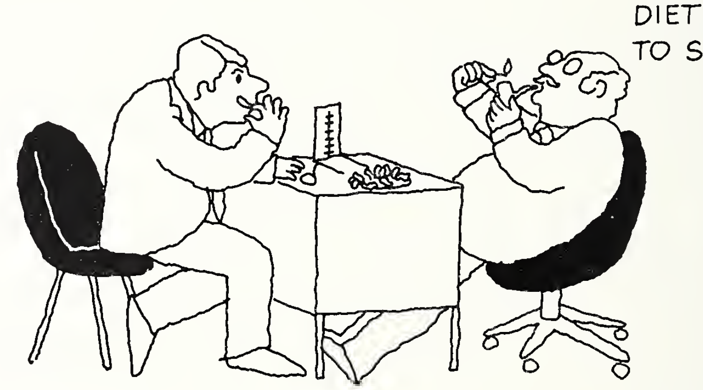
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TO START.

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other adverse reactions which have occurred in the adult. Inc
respiratory secretions, nasal congestion, cyanosis and anorexi
occur in infants born to reserpine-treated mothers. *Precautions:*
pertensive therapy with this drug should always be initiated cau
in postsympathectomy patients and in patients receiving gan
blocking agents, other potent antihypertensive drugs, or curare. F
dosage of concomitant antihypertensive agents by at least one-h
avoid hypotension during surgery, discontinue therapy with this
two weeks prior to elective surgical procedures. In emergency s
use, if needed, anticholinergic or adrenergic drugs or other sup
measures as indicated. Because of the possibility of progress
renal damage, periodic kidney function tests are indicated. Disc
if the BUN rises or liver dysfunction is aggravated. Hepatic com
be precipitated. Electrolyte imbalance, sodium and/or potassiu
pletion may occur. If potassium depletion should occur during th
the drug should be discontinued and potassium supplements
provided the patient does not have marked oliguria. Take particul
in cirrhosis or severe ischemic heart disease and in patients re

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ndications: Tybatran (tybamate) has afforded sympto-
:ic improvement in a variety of psychoneurotic disor-
;, especially in the treatment of the anxiety and tension
ıponents of psychoneuroses. Anxiety states manifested
ıatically have responded to Tybatran (tybamate).
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ation in the aged and in the alleviation of some of the
erse emotional accompaniments of senility.
ybatran (tybamate) has been used with benefit in the
tment of depressive symptoms associated with anxiety
other symptoms of psychoneuroses. However, it is not
cated for primary treatment of depressive states. It is
an antipsychotic agent, although it has been used as
nctive therapy in some psychotic patients.
osage: One 350 mg. capsule, 3 times daily and two at
ime is suggested as the adult starting dose. Adjust to
individual requirements. Daily doses above 3000 mg.
ıot recommended.
ontraindications: Known hypersensitivity to tybamate.
e no studies have been done with this drug in human
nancy, it should not be used in pregnancy unless the
ntial benefit outweighs the risk.
arnings: Administer cautiously to patients receiving
othiazines or other CNS depressants or having his-
of convulsive seizures (See Adverse Reactions). Con-
possibility of additive actions with alcohol or other
ıotropic agents, particularly phenothiazines or MAO
ıitors.
ecautions: Avoid abrupt withdrawal after prolonged
ılthough withdrawal symptoms have not been reported
te. Exercise caution in addiction-prone individuals. If
toms of hypersensitivity occur, discontinue at once
initiate appropriate symptomatic treatment. Avoid
ties requiring optimal mental alertness if drowsiness
:tigo are present. As with any new drug, use cautiously
tients with history of drug allergies, blood dyscrasias,
ıepatic or renal disease; periodic measurements of
ic, hematopoietic and renal function should accom-
prolonged and/or high doses.
verse Reactions: Most frequent reactions, rarely re-
g discontinuation of tybamate, include drowsiness,
ess, nausea, insomnia, and euphoria. There have been
reports of skin rash, urticaria, and pruritus. Rare side
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a, suggesting excessive stimulation; also ataxia, un-
ness, confusion, feeling of unreality, "panic reaction,"
e, headache, paresthesias, vertigo, gastrointestinal
bances, glossitis, and dry mouth. Grand mal or petit
izures have been reported in a few hospitalized psy-
patients receiving tybamate (up to 6000 mg. daily)
er with phenothiazines and other psychotropic
, but not with tybamate alone. Consider the possibil-
rare, serious adverse reactions such as may occur
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gested, gastric lavage and symptomatic therapy, in-
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claims review function. For example, there are two states where annual medicaid expenditures are in excess of $100 million. One employs seven people for its review function, the other employs 70. The latter state has very effective control over costs and utilization.

"But I am coming to believe that a major factor is the degree to which physicians are involved in the program, not simply as purveyors of medical care but, also, as watchdogs of costs and guardians of quality. They generate the bulk of medicaid expenditures. They authorize admissions to hospitals and skilled nursing homes and they write prescriptions. The need for genuine physician participation in controlling costs is self-evident. A state medicaid administrator would be well-advised to make extensive use of his medical advisory committee and to engineer the plan in detail through the state medical society."

In regard to what states already are doing, Finch said:

"Some states are using prior authorization of service (emergencies excepted). Some use fee schedules. Some use audit tolerance levels. Some incorporate parameters of medical care into their data processing systems. Some develop client and purveyor profiles. Some use computers to process claims. Others contract the review function to a fiscal agent, e.g., a Blue Cross plan. Some use a medical audit and some have been doing very little."

Ribicoff said in his letter to Finch that he understood "there is very uneven performance of medicaid program review throughout the nation."

Peer review under leadership of state and county medical societies has top priority in the American Medical Association recommendations for controlling costs in both medicaid and medicare. A report of the AMA board of trustees approved by the house of delegates at the 1969 annual convention in New York strongly urged that:

—"Peer review be assigned the highest priority by the state and county medical societies; that where existing mechanisms exist, they be strengthened, and where they do not, they be promptly established.

—"Quick and decisive action be taken, in appropriate fashion, to discipline those few physicians determined after investigation to be abusing medicare and medicaid, either fraudulently or otherwise."

The AMA recommendations for cost control in government health programs also include:

—"The promotion of innovative health service delivery systems for low income communities with emphasis on ambulatory care.

—"Programs by local medical societies to insure preservation of quality health care in the face of cost containment measures."

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New Duties and Responsibilities Assigned To the Missouri State Surgical Society

T. E. FERRELL, M.D., *President*

Dr. Ferrell explains the purposes and activities of the Missouri State Surgical Society. He urges all general surgeons in the state to become interested in affiliating with MSSS and invites them to apply for membership.

The Missouri State Surgical Society was organized in 1957 and incorporated in 1958 to promote and host scientific programs at the annual Missouri State Medical Association meetings. For the past few years, it has, in addition, hosted an interim fall clinical surgical program at the University of Missouri in Columbia in conjunction with one of the football games.

The Missouri State Surgical Society was officially designated to represent the general surgeon on the Missouri State Medical Association's Interspecialty Committee and the Medical Economics Contract Committee, which deal with problems of insurance, Medicare and Medicaid compensation schedules and general matters of third-party medicine. Realizing the asperity some may feel regarding this responsibility, let us be worthy of this trust, as will be exemplified by our sincerity in the discharge of this obligation.

With the new Constitution and By-Laws, new members' applications are first examined by the Membership Committee, voted upon by the Council. Only in unusual circumstances is oral examination required, thus allowing certification by mail.

To achieve the economic representation desirable for the general surgeon, the officers and council members listed below urge all general surgeons in this state who do not belong to the Missouri State Surgical Society to communicate with our secretary-treasurer, Howard E. Linville, M.D., 6700 Troost Ave., Kansas City, Mo. 64131, designating a desire for membership or for further information.

The names of our officers and council members are as follows:

Officers

President—Thomas E. Ferrell, M.D., Springfield

Immediate Past-President—Grafton A. Smith, M.D., Columbia

President-Elect—Cyril Costello, M.D., St. Louis

Vice-President—John Griffith, Jr., M.D., Kansas City

Secretary-Treasurer—Howard E. Linville, M.D., Kansas City

Council

Charles E. Lockhart, M.D., Springfield
Marion S. DeWeese, M.D., Columbia
Hugh E. Stephenson, Jr., M.D., Columbia
Eugene T. Hansbrough, M.D., Poplar Bluff
Cyril Costello, M.D., St. Louis
Paul T. McGannon, M.D., Kansas City

ACCIDENT AND HEALTH INSURANCE

The Missouri State Medical Association since 1943 has made available to its members a Special Disability Income Benefits Policy issued by our "Loyalty Group" Companies now a part of the America Fore-Loyalty Group Insurance Companies—the largest casualty-fire underwriting group in the world. The low cost at which the policy is offered is made possible through the purchasing power of the membership of your association as a whole.

Now, new plans offering long term income benefits as well as a special Major Hospital-Nurse Expense Plan have been added to the program. We suggest you who are already enrolled make sure your policy includes the maximum benefits. Those of you not enrolled, we suggest you do so today. Call or write:

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AMA 1969 Clinical Convention Set for Nov. 30 in Denver

The American Medical Association will hold its 23rd Clinical Convention in Denver on November 30 through December 3.

This year's AMA Clinical Convention is the third to be held in The Mile-High City. Denver previously was host-city in 1952 and 1961.

Scientific sessions planned for mornings and afternoons, Monday through Wednesday, cover the latest developments in a variety of areas including heart disease, cancer and pulmonary problems.

Roundtable sessions, previously conducted as breakfast gatherings, will be held over lunch at this year's Clinical Convention. Topics include the battered child, problems related to suicide and human sexuality.

About 25 medical motion pictures will be shown, including several premiere showings.

The entire program will be carried in the issue of *The Journal of the American Medical Association* dated October 20, 1969.

AMA's House of Delegates will meet in the Denver Hilton Hotel. Other sessions of the convention will be held in Denver's Convention Center Complex.

Some 3,000 physicians are expected to attend the four-day convention. Guests, medical students, registered nurses and other members of allied health professions and industrial exhibitors are expected to bring the total to about 7,000.

Closed circuit television programming is planned for the major hotels where those attending the convention will be staying.

St. Louis AGP to Present Symposium on Respiratory Disease

All physicians in the St. Louis and surrounding area, and their wives, are cordially invited to join the St. Louis Academy of General Practice and the Tuberculosis and Health Society of St. Louis at their first scientific meeting of the fall season on October 5 at the Colony Motor Hotel in Clayton. Registration will start at 9:30 A.M.

Dr. Leo Wacker, President of the St. Louis Academy, will welcome the guests. The morning program will present "Chemoprophylaxis in Tuberculosis: The Public Health Service Studies" by Francis J. Murray, M.D., Operational Research Section, National Communicable Disease Center, Bethesda, Md.; "New Concepts in Tuberculosis Treatment" by John C. Murphy, M.D., Assistant Commissioner of Health, St. Louis County; and "Early Diagnosis of Obstructive Lung Disease" by Benjamin Burrows, M.D., Professor of Internal Medicine and Head of the Section of Pulmonary Diseases, University of Arizona School of Medicine. There will be a brief question and answer period.

The ladies will join the doctors for luncheon. Rev. Raymond F. McCallister, Pastor of the Webster Groves Christian Church, will be the luncheon speaker. His topic will be "How to Stay Alive Though Buried."

In the afternoon, the program will present "The Course of Chronic Obstructive Lung Disease" by Thomas A. Neff, M.D., Assistant Director, Pulmonary Rehabilitation, University of Colorado Medical Center; and "Management of the 'Healthy' Obstructive Lung Disease Patient" by Dr. William F. Kistner, Internist, St. Louis University School of Medicine.

The program will be followed by a social hour.

A special program for the ladies will feature J. Roy McCarthy who will discuss "Extra-Sensory Perception."

The $6.00 ticket will include the educational features, luncheon and cocktails. Make your reservations at the St. Louis Academy of General Practice, 3839 Lindell Blvd., St. Louis, Mo. 63108.

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Miami, Florida

Leo V. Mulligan, M.D.
Medical Director
St. Louis City Hospital
St. Louis, Missouri

TUESDAY, NOV. 4, 1969
5:30 P.M.

SAINT LOUIS MEDICAL SOCIETY
AUDITORIUM

All Members of the Profession Invited

Dr. R. C. Hickey to Speak At Cancer Conference

Robert C. Hickey, M.D. Executive Vice-President and Director of the University of Texas M. D. Anderson Hospital and Tumor Institute in Houston, will be the guest speaker at the annual Southeast Missouri Cancer Conference on October 19 in Cape Girardeau.

In addition to Dr. Hickey, the conference program this year will present talks by ten physicians, surgeons, radiologists, pathologists and others in the area who are concerned with management of cancer in the Southeast section of the state. Members of the MSMA are invited to attend the meeting.

Dr. Hickey received his B.S. and M.D. degrees at Cornell University in New York City. He is Professor of Surgery at the University of Texas M. D. Anderson Hospital and Tumor Institute; Clinical Professor of Surgery at Baylor University College of Medicine, Houston, and Professor of Surgery at the University of Texas Dental Branch, among other appointments. He is a member of the American College of Surgeons Commission on Cancer and Board of Governors. He is a member of numerous scientific societies, is the recipient of numerous awards and author of the textbook, "Palliative Care of the Cancer Patient."

Dr. Hickey will give a critique on the following ten talks: "Malignant Melanoma," Eugene Hansbrough, M.D., Poplar Bluff; "Small Bowel Tumors," Paul Miltenberger, M.D., Kennett; "Cancer of the Colon," George Watkins, M.D., Farmington; "Tumors of the Bone," S. L. Gernstetter, M.D., Poplar Bluff; "Lymphomas," Harold Ridings, M.D., Cape Girardeau; "Thyroid Cancer," Max Heeb, M.D., Sikeston; "Cancer of the Cervix," Harold Rapp, M.D., Cape Girardeau; "Leukemia," William Shell, M.D., Sikeston; "Cancer of the Breast," John Tatom, M.D., Poplar Bluff; and "Cancer of the Lung," Charles McGinty, M.D., Cape Girardeau.

Help your statewide office maintain an accurate mailing list. Send your change of address promptly to MISSOURI MEDICINE, 515 East High St., Jefferson City, Mo. 65101.

medical melange

Notes of interest from Here .... and There

Dr. Kenneth K. Keown, former chairman of the department of anesthesiology at the University of Missouri Medical Center, has been appointed medical director of the Medical Center. The first person ever to hold the title of medical director, he will have a wide range of administrative duties. Dr. Keown joined the University Medical Center in 1957 as professor and chief of the section of anesthesiology. He had been associated with the Hahnemann Medical College and Hospital of Philadelphia, Pa. Dr. Keown was named to serve for two months on the *Project Hope*, hospital ship of the People-to-People Health Foundation, beginning on September 15.

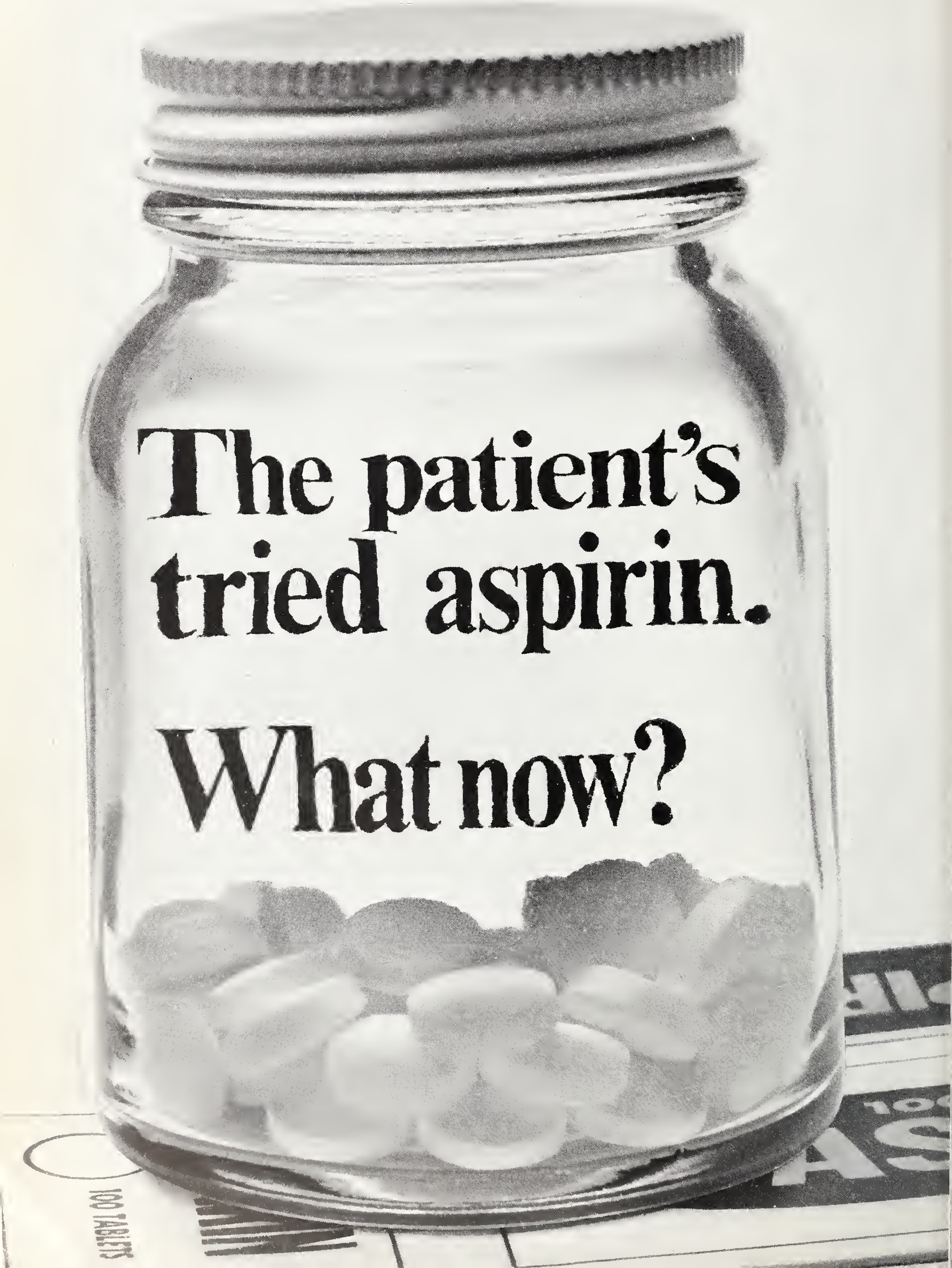
Dr. Raymond F. Gard, Independence, has retired after 42 years of medical practice. He and Mrs. Gard, who were honored guests at a reception given by **Judge and Mrs. Floyd L. Snyder**, have moved to Wichita, Kan. to be near relatives.

Dr. William Stoneman III, St. Louis, program coordinator for the Bi-State Regional Medical Program, has announced that **Dr. E. James Potchen** and **Dr. Frederic M. Simowitz** have been named directors of the program. Dr. Potchen, who is director of the nuclear medicine division of Washington University's Mallinckrodt Institute of Radiology, will serve as associate director for cancer. Dr. Simowitz, who is in the neurology department at St. Louis University Medical Center, will serve as associate director for stroke.

Addition of **Dr. Martin J. Fischer** to its staff has been announced by the **Thompson-Brymm-Knepper Medical and Surgical Clinic** in St. Joseph. A general and thoracic surgeon, Dr. Fischer is a graduate of the Washington University School of Medicine. He is a native of Akron, Ohio.

Dr. J. E. Block, former assistant chief of the receiving emergency service at Harbor General Hospital in Los Angeles, Calif., has established his practice in Sedalia with **Dr. T. S. Hopkins.—Dr. Philip W. Caster** has joined the staff of the **Gilfillan Clinic** in Memphis in the practice of general medicine. Dr. Caster received his M.D. degree from the University of Missouri in 1968. Both he and his wife, Mary Ann, are natives of Memphis. The addition of Dr. Caster brings the number of physicians at the Clinic to 12.

Two physicians have joined the staff of the Sale Memorial Hospital in Neosho. They are **Dr. Richard Betz**, a specialist in internal medicine, and **Dr. Robert Brown**, a general practitioner. Dr. Betz, a native of St. Louis, recently fulfilled his residency at the City of Memphis Hospital, Memphis, Tenn. Dr. Brown moved to Neosho from Caney, Kan., where he was in private practice.


The patient's tried aspirin.
What now?
100 TABLETS

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V. F. BURRY, M.D., S. B. PAKULA, M.D. *and*
A. N. THURN, B.S., *Kansas City*

The Treatment of Neonatal Escherichia Coli Meningitis

Case Reports

Kanamycin, administered intramuscularly, and aqueous penicillin have become the therapeutic agents of choice for most cases of neonatal septicemia. Ampicillin also has been recommended because it is effective against both gram positive and many gram negative organisms. There are numerous review articles to substantiate this approach.[1-3] The current literature suggests that when the blood culture grows Escherichia coli in infants with neonatal sepsis, kanamycin is usually effective.[4-6] The three infants described in this article had neonatal septicemia due to Escherichia coli. In each instance, the organisms were sensitive to kanamycin by laboratory test, but none had a satisfactory clinical response. One of the infants developed Escherichia coli meningitis while receiving kanamycin for septicemia caused by a kanamycin sensitive organism.

Case Reports

Case # 1 (Fig. 1) A two-day-old white female infant was referred to The Children's Mercy Hospital because of cyanosis and lethargy. The pregnancy had been uneventful. The membranes ruptured six hours prior to the double footling breech delivery. The birth weight was 2,610 gm. The child was lethargic and dusky during the first 24 hours following delivery. During the second day, she fed poorly, developed a poor cry and increasing lethargy and was transferred to this hospital. On admission, her temperature was 97F (36.1C); pulse rate, 140 per minute; and respiration rate, 30 per minute. The fontanel was bulging and a small right parietal subperiosteal cephalhematoma was present. Examination of the eyes, ears, nose and throat was not remarkable. The chest, heart and lungs were normal. There was no hepatosplenomegaly. Initial laboratory work disclosed the following values: hemoglobin, 14.8 gm/100 cc; hematocrit, 47%; white blood cell count (WBC), 4,800 with 56% polymorphonuclear cells, 44% lymphocytes and adequate platelets on the smear. Admission electrolytes were normal. The cerebrospinal fluid appeared cloudy with 1,550/cu

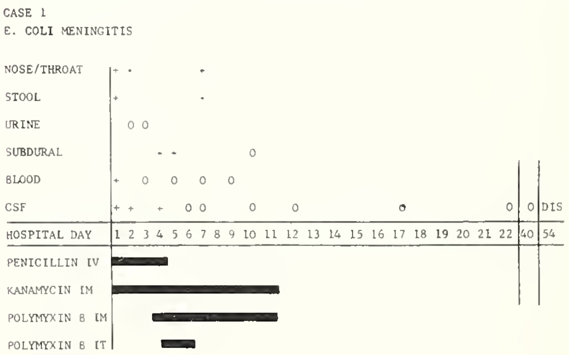

Fig. 1

mm white blood cells, 95% polymorphonuclear cells. An occasional gram negative rod was seen on the stained smear. The cerebrospinal fluid glucose was 25 mg/100 cc and a simultaneous blood glucose was 92 mg/100 cc. After 24 hours of incubation, the spinal fluid culture grew out Escherichia coli, type 0124:B17. The same serotype of Escherichia coli was isolated in pure culture from the nose, throat and blood. All of these isolates were sensitive to kanamycin by the standard disc method. A urine culture was sterile.

On admission, antibiotic treatment was begun by administering 65,000 units of aqueous penicillin intravenously every 12 hours and 20 mg of kanamycin intramuscularly every 12 hours. The patient had intermittent periods of apnea and seizures. A repeat lumbar puncture, performed on the second hospital day, showed increased white cells, decreased glucose and gram negative rods on direct smear. She developed petechiae on her legs, abdomen and face during the third hospital day, although a blood culture done on that day showed no growth. A repeat lumbar puncture on the fourth hospital day was again positive for Escherichia coli, type 0124:B17. At that time, bilateral subdural taps were positive for the same serotype of Escherichia coli. The penicillin was discontinued and 0.5 mg of polymyxin B in 1 cc of saline was administered intrathecally and 1.25 mg begun intramuscularly every six hours. The kanamycin also was continued intramuscularly. Lumbar puncture and blood culture showed no growth on the seventh hospital day, although the stool, nose and throat cultures continued to be positive for the same typable organism. An additional blood culture and five subsequent lumbar punctures showed no growth. The sensitivity of all the Escherichia coli isolates was similar to that observed in the initial spinal fluid culture (Table 1).

TABLE 1

CASE 1
E. COLI MENINGITIS

	CSF			BLOOD	STOOL	NOSE/THROAT	
DISC SENSITIVITY*	DAY 1	DAY 2	DAY 4	DAY 1	DAY 7	DAY 1	DAY 7
STREPTOMYCIN	S	S	S	S	S	S	S
TETRACYCLINE	S	S	S	S	S	S	S
CHLORAMPHENICOL	S	S	S	S	S	S	S
NEOMYCIN	S	S	S	S	S	S	S
KANAMYCIN	S	S	S	S	S	S	S
AMPICILLIN	S	S	S	S	S	S	S
CEPHALOTHIN	S	S	S	S	S	S	S
COLISTIN	S	S	S	S	S	S	S
POLYMYXIN B	S	S	S	S	S	S	S

* HIGH CONCENTRATION

Interpretation of disc sensitivity and resistance or both is based on standard methods described by Bauer *et al.*[7, 8]

The patient was thought to have brain damage on discharge from the hospital at 57 days of age. She was readmitted 34 days later with hydrocephalus. She died three days after a Pudenz shunt procedure was performed.

An autopsy showed hydrocephalus and aspiration pneumonitis. A blood culture was positive for Escherichia coli. This organism was not typed.

Case # 2 (Fig. 2) A two-day-old, white female infant weighing 2,680 gm was admitted to The Children's Mercy Hospital with a clinical diagnosis of neonatal sepsis. The pregnancy and delivery were uneventful. The initial cerebrospinal fluid examination was negative, but the blood culture and stool specimen grew a nontypable Escherichia coli. The patient received 20 mg of kanamycin and 15,000 units of aqueous penicillin intramuscularly every 12 hours. There was little clinical change during the next five days, so blood culture, lumbar puncture and subdural taps were done. The spinal fluid and subdural fluid showed gram negative rods on direct smear. These fluids and the blood culture grew Escherichia coli. The bacteria in the original cultures and those obtained on the fifth day were sensitive to kanamycin by disc test. On the fifth hospital day, 3.5 mg of polymyxin B administered intramuscularly every 12 hours and 20 mg of chloramphenicol administered intravenously every six hours were added to the regimen.

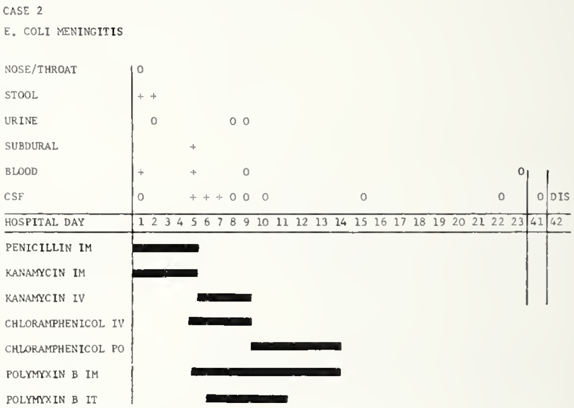

Fig. 2

On the sixth day the cerebrospinal fluid was again positive for Escherichia coli. Two milligrams of polymyxin B in 2 ml of normal saline were then given intrathecally. The cerebrospinal fluid was still positive on the seventh day, but the white cell count was lower and fewer organisms were seen on direct smear. Polymyxin and intravenous chloramphenicol were continued intrathecally and intramuscularly and the kanamycin and penicillin were stopped.

All of the Escherichia coli isolates showed the same sensitivity pattern on the disc test (Table 2). All cultures were negative for Escherichia coli on the eighth day. The intrathecal polymyxin and chloramphenicol were discontinued after ten days.

Urine cultures had been obtained early in the illness and were sterile. The infant was dismissed after 44 days of hospitalization. The infant was seen one week after dismissal and seemed to be doing well. Hereafter, she failed to return to the clinic or her private physician for further evaluation.

Case # 3 (Fig. 3) A newborn white female infant weighing 3,070 gm was transferred to the Menorah Medical Center at 29 hours of age with a diagnosis of meningitis. She was born 22 hours after spontaneous rupture of the membranes, following an unremarkable term pregnancy. The infant appeared normal at birth. During the first 24 hours she developed vomiting, fever, cyanosis, irritability and seizures. A lumbar puncture showed cloudy fluid with "more than 10,000" cells and gram negative rods on direct smear. Blood, cerebrospinal fluids, nose and throat cultures were all positive for Escherichia coli. Twenty-five milligrams of kanamycin and 150,000 units of aqueous penicillin were given intramuscularly every 12 hours. The infant's seizures stopped on the second day, but her muscle tone was poor.

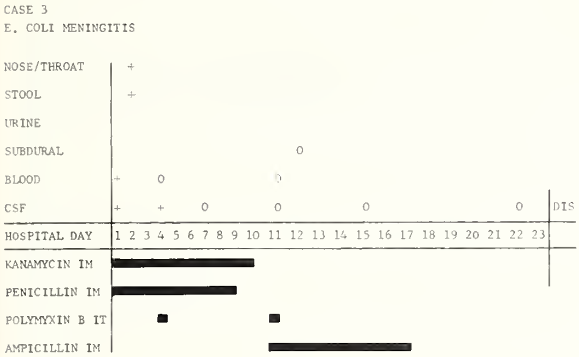

Fig. 3

On the fourth hospital day, the cerebrospinal fluid was still cloudy. The cell count was 3,200 cu mm with mostly polymorphonuclear cells. The patient received 1.5 mg of polymyxin B intrathecally. Although the gram stain had been negative, Escherichia coli grew out on culture (Table 2). A blood culture was negative. The penicillin and kanamycin were continued and the infant slowly improved. Subsequent cerebrospinal examinations showed progressive decrease in cell counts and all of the cultures were bacteriologically sterile. One additional intrathecal dose of polymyxin B was given on the eleventh hospital day because of a suspected growth in a cerebrospinal culture done several days earlier.

TABLE 2

CASE 2
E. COLI MENINGITIS

CASE 3
E. CDLI MENINGITIS

	CSF			BLOOD		SUBDURAL	CSF		BLOOD
DISC SENSITIVITY*	DAY 5	DAY 6	DAY 7	DAY 1	DAY 5	DAY 5	DAY 1	DAY 4	DAY 1
STREPTDMYCIN	S	S	S	S	S	S	S	S	S
TETRACYCLINE	S	S	S	S	S	S	S	S	S
CHLORAMPHENICDL	S	S	S	S	S	S	S	S	S
NEDMYCIN	S	S	S	S	S	S	S	S	S
KANAMYCIN	S	S	S	S	S	S	S	S	S
AMPICILLIN	S	S	S	S	S	S	S	S	S
CEPHALOTHIN	S	S	S	S	S	S	S	S	S
CDLISTIN	-	-	-	-	-	-	S	S	S
POLYMYXIN B	S	S	S	S	S	S	S	S	S

* HIGH CDNCENTRATIDN

Interpretation of disc sensitivity and resistance or both is based on standard methods described by Bauer *et al.*[7, 8]

Three case reports that show the value of cerebrospinal fluid examination in monitoring the response of the neonate with meningitis. Polymyxin B, given intrathecally, appeared to be a most helpful therapeutic agent and should be seriously considered in the treatment program if the cerebrospinal fluid culture is positive for Escherichia coli after 24 hours of kanamycin therapy. The authors are from The Children's Mercy Hospital.

The subsequent hospital course was one of gradual improvement. Kanamycin and penicillin were discontinued after ten days and ampicillin was given intramuscularly for six days. The patient's family was transferred out of state shortly after discharge, but the infant was said to be developing normally, without evidence of hydrocephalus or neurological impairment.

Discussion

These clinical histories show the value of cerebrospinal fluid examination in monitoring the response of the neonate with meningitis. The important measures of the therapeutic effectiveness of the antibiotic agents are the in vivo results of treatment.

The reasons for the poor therapeutic response to kanamycin in these infants are not known. The in vitro disc tests indicated that the Escherichia coli organisms were sensitive to kanamycin. The disc tests, when done according to established criteria, are usually reliable in assessing expected serum antibiotic activity.[7, 8] They do not indicate that the infection will be eradicated. It is known that kanamycin does not cross the uninflamed meninges in high concentrations. In a small series of infants with meningitis, however, it has been shown that adequate cerebrospinal fluid levels of kanamycin are obtained when the usual dosage and route of administration are used.[5]

Another factor may relate to the observation that parenterally administered kanamycin is poorly excreted into the gastrointestinal tract.[9]

In the first case, the specific typable Escherichia coli persisted in the nose, throat and gastrointestinal tract even after clearing of the cerebrospinal fluid. The second infant developed meningitis due to Escherichia coli while receiving kanamycin. This patient had normal cerebrospinal fluid initially and was shown to have meningitis due to a "kanamycin sensitive" organism. In the third case, meningitis persisted but the blood stream cleared. The persistence of these organisms in the intestinal tract may provide a reservoir of organisms which continually invade the vascular system and perpetuate the sepsis. If the organisms become established in a closed space, such as the subdural area, they are difficult to eradicate and may cause persistent infection.

There is the theoretical possibility that calcium and kanamycin interaction impaired the effectiveness of the antibiotic. Two infants received calcium gluconate in their maintenance intravenous infusions. Sakuri *et al* have reported the inactivation of kanamycin antibiotic activity when calcium ion was added to an in vitro culture system.[10] In the neuromuscular blockade syndrome, McQuillen has shown that kanamycin and acetylcholine may compete for synaptic binding sites. In this situation, calcium ion seems to reverse the acetylcholine and kanamycin competition.[11] How the binding of kanamycin and the interaction with calcium affects the antibiotic activity of the drug is not entirely clear, but the interrelationships are worthy of more investigation.

The evaluation and treatment of neonatal sepsis is complex and difficult to evaluate. The precarious immunologic status of the newborn is well recognized. Perhaps a more aggressive therapeutic regimen is in order when Escherichia coli septicemia is proven. Certainly lumbar puncture is mandatory. Polymyxin B, given intrathecally, is usually recommended only for pseudomonas infections of the central nervous system. It is possible that this agent should be used for other susceptible gram negative infections of the nervous system. The second infant developed meningitis while receiving kanamycin. The pathogenesis of this infection is not clear. It is to be noted that observations on this one patient do not warrant the use of "prophylactic" polymyxin B intrathecally for infants with Escherichia coli septicemia.

Our experience suggests that if the cerebrospinal fluid culture is positive for Escherichia coli after 24 hours of kanamycin therapy, polymyxin B intrathecal therapy should be seriously considered in the treatment program. If a persistent or recurrent Escherichia coli septicemia is present or if the cerebrospinal fluid culture remains positive, a source of seeding such as a subdural empyema or other infected site should be considered. The role of the gastrointestinal flora in persistent neonatal septicemia is not known but deserves further attention.

SUMMARY

Reports of three cases of neonatal meningitis due to Escherichia coli have been presented. The organisms were isolated repeatedly while the infants received presumably adequate doses of kanamycin, to which the Escherichia coli were susceptible by in vitro tests. Polymyxin B, given intrathecally, appeared to be a most helpful therapeutic agent.

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ROBERT L. GLASS, M.D., *Sedalia*

Perforated Idiopathic Cecal Ulcer in a 12-Year-Old Diabetic Patient

Case Report

ULCER OF THE CECUM without neoplastic, parasitic, vascular or specific bacterial etiology is uncommon, but it has been well described.[1] Attempts to associate these lesions with drugs,[2, 3] vascular disease[4] and trauma have been unconvincing. Of previously reported cases, the youngest patient involved was 16 years old.[5]

CASE REPORTS

A 12-year-old white girl was admitted to the hospital in coma. She had a six-weeks history of polydipsia, polyuria and a 9 lb weight loss. Increasing lethargy and dyspnea were noted during the week preceding admission. She had complained of nausea and had vomited once, but had not complained of abdominal pain. On admission, her temperature was 95 F (35.0 C); pulse rate, 120 per minute; respiration rate, 40 per minute; blood pressure, 60/40.

The patient was comatose and tachypneic. She had a distended abdomen with a suggestion of right lower quadrant tenderness. The white blood cell count was 25,000; urinalysis showed 4+ glucose and strong acetone; blood glucose was 832 mg/100 cc.

After 24 hours of appropriate insulin and intravenous fluid therapy, the patient was arousable, but she had a temperature of 103 F (39.4 C) and abdominal distentions. Antibiotics were administered, but her temperature remained at 100 F-101 F during the next two days.

Four days after admission, the patient was taken to the operating room with the diagnosis of acute appendicitis. Exploration through a McBurney incision entered a 100 cc collection of purulent fluid extending from the cecal area into the pelvis. A sharply demarcated, 3 cm necrotic area was present on the anterior wall of the cecum; the appendix was normal grossly.

The ulcer was resected with a 2 cm margin of adjacent cecal wall and the cecum closed in layers. The appendix was removed in the usual manner and the area was drained. The patient made an uncomplicated recovery.

Histologic examination (Fig. 1) showed necrotic cecal wall with nonspecific acute inflammation in the base and adjacent viable tissue.

DISCUSSION

The reported cases of idiopathic ulcer of the cecum are slightly predominant in males and are most common in patients in the 40- to 60-year age group. The majority present the clinical picture of acute appendicitis. At surgery, there may be enough induration present to mimic a perforated carcinoma.[6] The published reviews stress that there is no tendency for the lesions to recur and that local resection and closure is the treatment of choice,[1, 7] right hemicolectomy being

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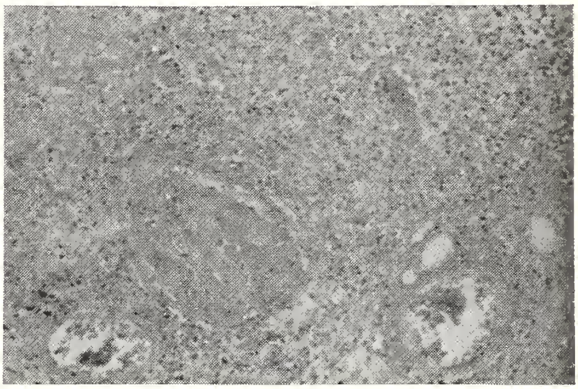

Fig. 1 Section through necrotic base of ulcer with polymorphonuclear infiltrate and inflammatory thrombus in venule.

An unusual case report of a 12-year-old diabetic girl with a perforated cecal ulcer. After treatment by local excision and closure, the patient made an uncomplicated recovery. Other reported cases of idiopathic ulcer of the cecum are predominant in males and most common in patients in the 40-60 year age group. Dr. Glass is Assistant Clinical Professor of Surgery at the Missouri University School of Medicine and is in the private practice of surgery in Sedalia. At the present time, he is on active duty as Commander, USNR(MC) at the Naval Hospital, Camp Pendleton, Calif.

GEORGE C. WEE, M.D. ***and*** **GEORGE L. TUCKER, M.D.,**
St. Louis

Phenolic Cauterization of the Matrix in the Surgical Cure of Ingrown Toenails

Man walks on two feet. With the advent of civilization came the invention of footwear made of leather. Catering to the vanity of both man and woman, fashion designers devised unhealthy shapes, such as pointed shoes, with the belief that large feet are the antithesis of beauty. Such customs produce a frequently acquired, painful affliction of modern man called *onychocryptosis,* universally known as ingrown toenail.

This ailment usually is seen on the outer margin of the great toe. However, the inner margin or both may be involved. This is almost always caused by wearing shoes or stockings which are too tight. In growing children, pointed shoes are a frequent cause. Another contributing factor is the ill-advised habit of trimming the corners of the nails off below the skin edge. Ulceration and infection invariably take place when the skin at the corner of the shortened nail is subjected to repeated trauma.

If neglected, a considerable amount of granulation tissue grows up from the ulcerated area. The toe becomes very painful. The condition is made worse by cutting off the visible edge of the nail, leaving a buried projection of the nail. Infection occurs and the foot becomes painful. This is when the patient is seen by the surgeon.

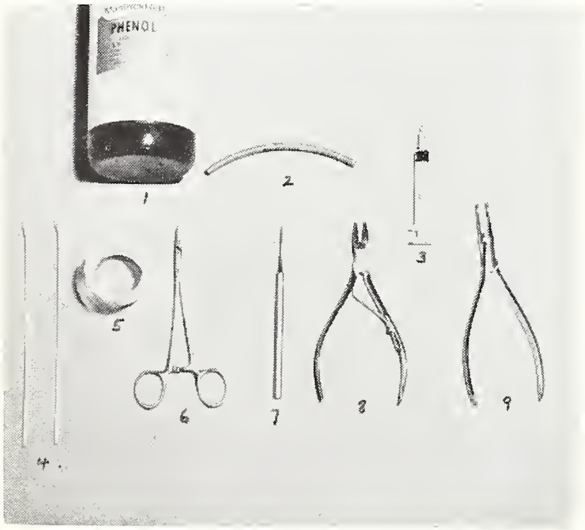

Fig. 1 Instruments used in the surgical procedure are *(top, l to r)* (1) liquified phenol, (2) rubber tourniquet, (3) 2½ cc syringe with #25 gauge needle, 1¼ inch. *Bottom,* (4) cotton applicators, (5) glass dish for phenol, (6) hemostat, (7) nail splitter, (8) small 5-inch straight edge snipper, (9) curved hemostat.

Surgical Procedure

The most commonly-used surgical procedure by physicians and surgeons is the method of Winograd.[1] A local anesthetic agent is infiltrated around the base of the large toe. A rubber band tourniquet is applied. A nail section of ⅛ to ¼ inch is removed on the involved side. A small incision is made in the soft tissue of the nail fold and eponychium in the line of the incision to be made in the nail and extending back to the matrix. The matrix and nail bed are excised by a curette or a scalpel, including the innermost corner in order to prevent the recurrence of nail growth. In a series of 15 cases for which we used this method, we have a recurrence rate of about 30%, all involving a small sliver of nail. This grew back and caused considerable pain and annoyance to the patient, as well as discomfort to the surgeon.

Consultation was made with our podiatrist and with the recommended podiatric literature.[2–4] Phenolic cauterization of the matrix was used in 16 patients with only one minor recurrence. Fig. 1 shows the instruments used in our procedure, which is as follows:

1. The foot is carefully prepared and draped.
2. A digital nerve block is performed with 3 cc to 5 cc of 1% mepivacaine (Carbocaine®).
3. A rubber band tourniquet is applied around the base of the toe.
4. ⅛ to ¼ inch of the incurvated nail is incised with a nail splitter, starting from the distal end and going proximally in a straight line. The incision in the nail is extended to its base under the eponychium.
5. The detached nail is grasped with a hemostat and removed. No incision is made into the eponychium.

6. The nail groove is dried with a dry sterile cotton tipped applicator.

7. Sterile cotton is then wrapped around a nail probe or other similar instrument and dipped into liquified pure phenol. It is then introduced into the nail groove and massaged vigorously back and forth for two minutes making sure to include the area beyond the posterior nail fold in the massaged area, being careful not to allow any of the phenol to leak out onto the skin. If this happens, the phenol should be wiped off with a dry gauze. The operated area will become white from the protein precipitating action of the pure phenol.

8. A dry, cotton-tipped applicator is then introduced into the cavity until all the phenol has been wiped off.

9. The rubber tourniquet is then released. There is usually minimal bleeding.

10. A dressing with antibiotic ointment is applied.

11. The patient may walk after surgery, but it is better to have him rest in bed with elevation of the foot. He may walk the next day with "cut-off" shoe or a Reece wooden sole shoe®, especially made for this purpose.

Discussion

The phenol procedure is far more effective in destroying the nail matrix than simple curettage, as shown by the extremely low recurrence rate of the former. It is contraindicated only in the presence of vascular disease of the foot. Healing time is usually two weeks, unless the procedure is performed in the presence of extensive infection, when it may be prolonged to six weeks. It usually is preferable to let acute infection subside through the use of soaks and antibiotic ointments before performing the procedure.

Onychocryptosis, known as ingrown toenail, has become a frequently-acquired, painful affliction of modern man. The authors recommend phenolic cauterization of the nail matrix in treatment for its simplicity, low postoperative morbidity and low recurrence rate. They give a step-by-step description of the surgical procedure. Dr. Wee is Chief of Surgical Service and Dr. Tucker is Consultant in Surgery at Jefferson Barracks Veterans Administration Hospital. Also, Dr. Wee is Instructor in Surgery and Dr. Tucker is Assistant Professor in Clinical Surgery at the Washington University School of Medicine.

Conclusion

Phenolic cauterization of the nail matrix in the treatment of onychocryptosis is recommended for its simplicity, low postoperative morbidity and low recurrence rate.

Acknowledgement—The authors wish to thank Dr. Earl Fischer, podiatrist at the Jefferson Barracks Veterans Administration Hospital, for his suggestions and assistance in this study.

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Perforated Idiopathic Cecal Ulcer

(Continued from page 801)

performed when a reasonable suspicion of cancer exists.

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B. F. WOOLDRIDGE, M.D., ***Joplin***

Traumatic Rupture of the Spleen

A Review

THE SPLEEN is the one organ most frequently ruptured in nonpenetrating injuries to the abdomen. In recent years, traumatic injury of the abdomen has assumed increasing importance because of the rapid development of the automobile as means of transportation and the increasing number of accidents on our highways and streets, in particular, and in the factory, farm and home to a lesser extent. In reports of large hospitals, splenic injuries comprise almost 50% of all subcutaneous injury cases of the abdomen, either singularly or in combination with other injured viscerae.[1-4]

The first reported case of splenic rupture was that of Celsus in the 15th century.[5] More than 1,000 cases had been reported by 1950[3] and current reports are numerous. The increase in number of reported cases represents, in part, an increase in diagnostic techniques and acumen, but the increase in trauma of all types secondary to our modern way of life has contributed in large part to the growth of reported cases of ruptured spleen. Collected cases in the two general hospitals in Joplin in the ten-year period, 1958-1968, number 20, including three[3] cases of injury during surgical procedures. This small number has not lent itself to statistical analysis, but has served as a basis for recent literature review.

Noting that the most common cause of traumatic rupture of the spleen is the automobile accident and that the increase in reported cases of this injury is related to the everincreasing number of automobiles and resulting traffic accidents, the author provides a review of the literature, paying particular attention to splenectomy, the treatment of choice. Dr. Wooldridge, who is in the private practice of general surgery, is Attending Surgeon at Freeman Hospital and Chief of the Surgical Section at St. John's Hospital. This paper was presented originally at the 1969 Annual Meeting of the Missouri Chapter, American College of Surgeons.

ETIOLOGY

The most common cause of traumatic rupture of the spleen in civilian practice is the automobile accident. Other causes include falls, blows and kicks, blows by moving objects and direct penetrating injuries. Athletic injuries have been uncommonly reported. Interestingly, an increasing number of reports of abdominal injury are being reported of injury caused by the automobile seat belt. These have been injuries mainly to small bowel, urinary bladder, pancreas and duodenum. Cocke and Meyer and Fisher have reported single cases of splenic rupture due to the seat belt.[6-8] Of additional interest, in etiology, are those cases of iatrogenic rupture of the spleen due to splenoportography, splenic needle biopsy and injury during gastric or colon surgery.

ASSOCIATED INJURIES

Most reported series indicate isolated splenic rupture occurring in 20% to 50% of cases, with the majority occurring with associated injuries. In order of decreasing incidence, these include kidney, rib fractures, other fractures (pelvis, vertebra, extremity), liver, lung, cranio-cerebral, small bowel, large bowel, pancreas and stomach.[9, 10]

SIGNS AND SYMPTOMS

In general, the clinical picture of the patient with ruptured spleen is the same as that produced by internal hemorrhage from any cause, with signs of peritonitis, sometimes localized in the left upper quadrant of the abdomen and, often, with an enlarging left upper quadrant mass. Some clinicians report 75% of patients presenting with shock on admission. The amount of blood lost into the peritoneal cavity depends upon the extent and position of the splenic laceration. Left shoulder pain (Kehr's sign) may be present, suggesting pathology below the left diaphragm. Whenever there is abdominal injury, rising pulse rate, declining blood pressure, pallor, thirst, air hunger or falling red blood cell count, the indications for laparotomy are unequivocal.

Baudet, in 1907, called attention to an interval of quiescence that occasionally followed splenic trauma in which bleeding ceased, only to resume sometime beyond 48 hours after the splenic injury. This has become known as the latent period of Baudet,[11] and this type of delayed rupture accounts for 14% of all ruptures of the spleen in large series of reported cases. In 50% of these, the delayed rupture presents within seven days after injury, and in 75% of cases, it presents by the second week following trauma.[12] Castleman and McNeely[13] report an instance in which rupture took place after six months. Also, delayed rupture after two years has been recorded.[14]

Several types of splenic injuries have been recognized. There may be a minor laceration of the capsule or an intrasplenic or subcapsular hematoma, or there may be a pedicle tear. The omentum, stomach or other organ adhesion may temporarily tamponade a capsular laceration. A time lag is necessary for a slowly enlarging subcapsular or intrasplenic hematoma to rupture through the splenic capsule, and this may present with explosive suddenness. There seems to be no way of predicting delayed rupture on the basis of the severity of the initial trauma. The late appearance of acute symptoms also may occur spontaneously or with trauma of varying degree, such as coughing or lifting.

Laboratory Aids

Anemia early in the course is unreliable since it tends to be masked by hemoconcentration. Leukocytosis usually is quite marked. X-ray examination of the chest and abdomen usually is of little value in establishing a positive diagnosis of ruptured spleen, but may serve to rule out other injuries, such as diaphragmatic rupture, pneumothorax or ruptured hollow viscus. Wong and Robbins have described x-ray findings which they find most pathognomonic of rupture of the spleen, as follows (Fig. 1):

a. Raised left diaphragm.
b. Displacement of the gastric shadow toward the midline and serrations of the greater curvature of the gas filled stomach.
c. Subphrenic opacity.
d. Descent of the left portion of the transverse colon.
e. Fractured ribs on the left are not necessarily a concomitant of ruptured spleen, but their presence should arouse a more critical appraisal of other findings suggesting the diagnosis.

Needle aspiration of the abdomen has been advocated by many as a helpful diagnostic aid, although a negative tap is non-diagnostic and should not encourage unwarranted treatment delay if signs of internal bleeding continue.[15-17]

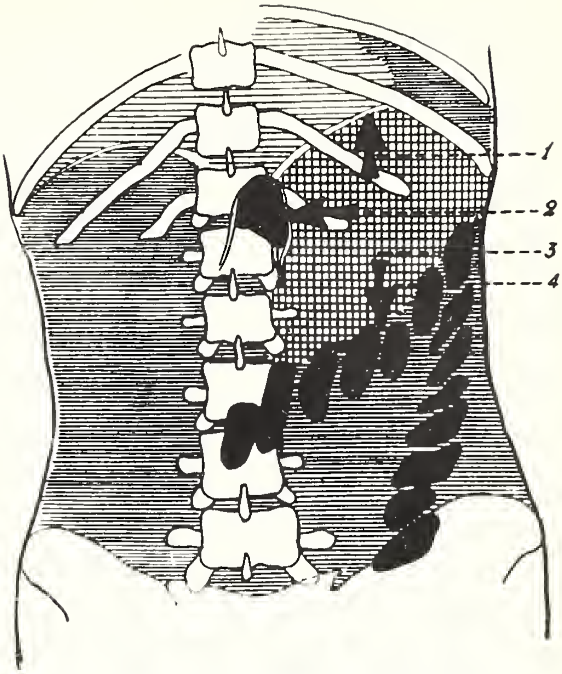

Fig. 1 Schematic drawing of x-ray findings in rupture of the spleen show (1) elevation of left diaphragm, (2) medial displacement of gastric shadow, (3) left subphrenic opacity, (4) depression of left part of transverse colon.

Splenic and liver scan, as well as arteriography, are currently under investigation as diagnostic aids, but further experience is needed to know what place these procedures will have in the diagnosis of abdominal trauma.[18, 19]

Treatment

Splenectomy is the treatment of choice, as the mortality without it approaches 100%. Occasionally, a traumatic cyst will follow subcutaneous rupture and may present later with considerable splenomegaly and calcific deposits.[20, 21] Usage of tissue adhesives, such as Methyl 2 cyanoacrylate monomer, in repair of lacerations is still in the experimental stage.[22]

At laparotomy, provision for transfusion should be made, preferably by positioning an IV cannula before opening the abdomen. Exposure may be made with a left rectus incision which can be extended, if necessary. Transverse incisions, left subcostal and thoracoabdominal incisions are useful in selected cases with concomitant problems. The incision must be large enough to enable rapid exploration, and all areas of trauma must be quickly noted and evaluated. Sedgwick has noted that as the splenic vessels are more accessible from behind, the hilum should be approached first through the divided splenorenal ligament. As the major bleeding is controlled, the attachments to the stomach and colon then can be divided and the spleen removed.[23] Postsplenectomy drainage may prevent subdiaphragmatic collection of fluid in the splenic bed and, also, serve to drain the tail of the pancreas in the event that pancreatic injury occurred in the course of splenectomy.[24]

After splenectomy, there usually is a physiological thrombocytosis. This may reach 600,000 to 700,000 per cmm, and counts of 1 million have been reported. Excessive rises are particularly apt to be found after splenectomy for congenital hemolytic anemia and traumatic rupture. Platelet rises begin during the first week postoperatively and usually have disappeared by the end of the second or third week. With the rise in platelets, thrombi can develop in various parts of the body, particularly in branches of the portal system. Unexplained abdominal pain and fever occurring in the first week after splenectomy should suggest thrombosis, particularly if the platelet count is very high at the time. Anticoagulants present a risk of oozing from the splenic bed and should be used only if definite signs of thrombosis appear.

In the literature, the mortality following splenectomy for rupture varies from 0% to 33% with an average of 15%, the higher mortality rate being in direct proportion to the degree and multiplicity of organ trauma sustained.[12] Artz found from studies during the Korean War that the two prime factors upon which mortality depended were the number of organs injured and the time gap between injury and surgery.[25] It is felt that surgical delay should be tolerated only for blood replacement in treating shock. The patient who is not in shock presents a far better operative risk. When a response to blood replacement is not forthcoming, however, surgery should be instituted even in the face of severe hypotension. In our series of traumatic cases, an average of 1,500 cc of blood was given before, during and after surgery. Of the 20 cases herein noted, all recovered except one. This patient was a 66-year-old white man with agnogenic myoloid metaplasia who bled following splenic puncture biopsy. He died on the third day following splenectomy from pulmonary embolus.

Summary

Splenic injuries have shown an increasing incidence associated with trauma secondary to our modern way of life. Splenic injury may result in immediate rupture, delayed rupture or rarely traumatic cyst. Associated injuries to other organs occur in the majority of cases. History of injury, persistent abdominal pain, rigidity, rebound tenderness and shock suggest splenic injury and present distinct indication for laparotomy. X-ray studies, abdominal paracentesis and splenic scan may be of little value in preoperative diagnosis. Splenic hemorrhage must be controlled rapidly at laparotomy and other areas of trauma quickly noted and evaluated. Physiological thrombocytosis, postoperatively, may be conducive to thromboembolic complications. Mortality depends primarily upon multiplicity of associated organ injuries and time lag between injury and surgery.

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Somatic Growth of Children in the United States

Growth is a manifestation of life in the young and its rate of quality are related to the general health and nutrition of the individual. Genetic and environmental factors vary in so many ways that well controlled studies over the relatively long period of human growth and development are difficult to make and interpret. A curious, unexplained disinterest in physical growth and biologic maturation existed among physicians until relatively recently.

Historical Background

A little more than 100 years ago (1836), Quetelet in France made one of the first scientific studies of growth.[1] Guillot, in 1852, was the first to advocate the use of periodic weighing of infants and children as a means of evaluating their general health.[2] Furthermore, he emphasized the value of this method in estimating the adequacy of the breast-milk feeding. The fundamental relationship between the height and weight and the proportions of the human body have been studied and reported in the United States during the past century. Bowditch, in 1875, made a careful study of the growth of children in the United States.[3] He prepared numerous height and weight tables of boys and girls from various ethnic and economic backgrounds. In Germany, Camerer collected material relating energy requirements to growth from birth to adulthood.[4] The data collected by Bowditch and Camerer served as the usual guides for comparisons in most of the standard pediatric texts until well into the 20th century.

In the pediatric literature of that period, one frequently finds statements that breast-fed infants thrive better than the artificially-fed infants during the first months after birth.[5, 6] However, growth data to support these statements are limited. Holt's data in 1897 were the earliest found to be reported in the American literature.[7] The weight values of this group of breast-fed infants were derived from complete weight charts of 100 healthy nursing infants and incomplete charts of about 300 others. The mean weights of this group of breast-fed infants are plotted in relationship to present American weight standards for boys and girls (Fig. 1). Although the curve was constructed with weight averages regardless of the sex of the infants,

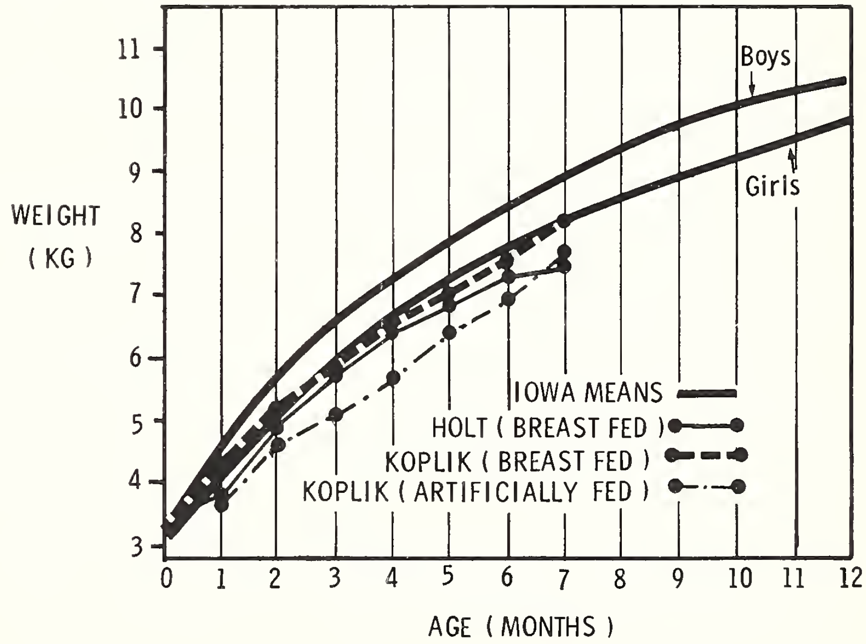

Fig. 1. Mean weights of breast-fed Infants in 1897 and 1910; artificially-fed group in 1910 compared to present American standards.

Even though an unexplained disinterest in physical growth and biologic maturation existed among physicians until relatively recently, the growth rate of children has proved to be one of the most simple, inexpensive and reliable tools as an index of nutritional status. The author presents a review of the historical background of scientific studies and the information they reveal. He discusses in detail the results of a recently completed study of the growth of normal, healthy, American infants in Missouri and Illinois. Dr. Jackson is Professor and Chairman of the Department of Pediatrics, University of Missouri School of Medicine. This paper was presented originally at the 12th Annual International Congress of Pediatrics in Mexico City, Mexico.

there is a statement that girls throughout the year are on the average half a pound lighter than the boys. It is further stated that the weight curve for properly artificially-fed infants does not differ from that of the breast-fed infants, except in the slower gain of the first one or two months. This difference usually is made up before the sixth month is reached. Koplik, in 1910, recorded average weights for breast-fed and artificially-fed infants (Fig. 1).[5] The average birth weight was 7½ lb. The number of infants and their sexes are not given. The type or types of formula given to the artificially-fed group also are not stated.

Wood, in 1918, using data on school children in the East and Midwest United States, presented tables of average weight for height for both sexes.[8] In the next decade, Wood and Baldwin revised these tables to present mean weight for sex-age-height groups.[9] Woodbury, in 1921, compiled weight norms for sex-age-height groups of children at ages between birth and six years.[10] The Baldwin-Wood and Woodbury tables were widely used for the most part to appraise nutrition status at a given time. Kornfeld, in 1929, compiled standards for height and weight for boys and girls from birth to 20 years of age, using subjects of Northern European origin.[11] Burgess, in 1939, compiled data on American-born children and published height tables showing height values for various percentile levels at given ages.[12]

After 1920, a number of research centers for the study of growth and development were established in the U. S. A., including the Iowa Child Research Station, University of Iowa; the Brush Foundation at Western Reserve University; the Yale Clinic of Child Development; the Child Health Division of the Harvard School of Public Health; the Child Research Council of the University of Colorado; and the Fels Research Institute for the Study of Human Development, Antioch College. One of the important reasons for the creation of such centers was the longitudinal study of the child. Although cross-sectional studies have value, more detailed knowledge can be obtained by following individual children throughout part or all of the growing period.

Norms presented in terms of curves have a decided advantage over tables. Once the measurements are plotted on a graph, one looks at a picture of growth with the intermediate numerical steps dispensed with once and for all. Wetzel, in 1943, through his grid for evaluating physical fitness, made a distinct contribution to the interpretation of physical measurements of height and weight by stressing to the clinician the importance of evaluating the child's rate of growth.[13]

Charts of height-age and weight-age for American boys and girls have been constructed from a number of studies of normal children from Massachusetts (1943), Iowa (1945), Ohio (1944) and California (1954).[14, 15] Children studied were white and predominately of middle class Northern European ancestry. The Iowa norms, which have been used as national and international standards, approach the optimum because the children came from high socioeconomic groups which had had professional nutritional guidance.[16]

Fig. 2 and 3 depict the standard height-age and weight-age curves for Iowa preschool boys and girls (zero to six). In devising these charts, every effort was made to meet the needs of simplicity in design. Since height is normally distributed for age groups, we used mean value with ± standard deviation (S.D.); since weight is slightly skewed for age groups, we used the median (50th percentile) with the 16th and 84th percentiles (equivalent to ±1 S.D.). In the revised curves presented here, we have added lines for ±2 S.D.'s for height as well as lines to represent the third and 97th percentiles for weight. These revisions were made to meet the requests of the many investigators evaluating the growth of children from various ethnic groups living in different areas of the world. It has been my opinion that it is easy to discern these ranges without having the actual lines on the curves. Children with values below 1 S.D. for height or 16th percentile for weight need

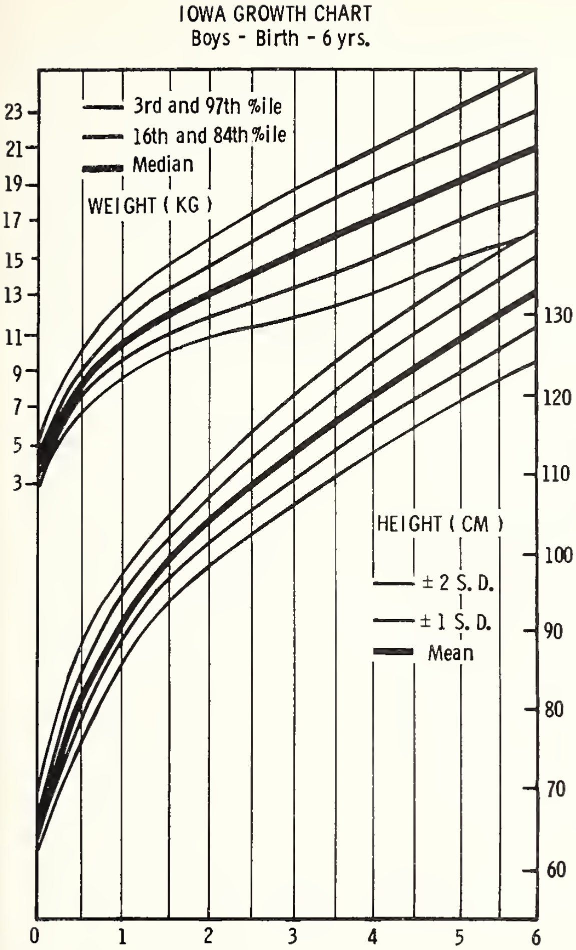

Fig. 2 Standard height-age and weight-age curves for Iowa preschool boys (zero to six years).

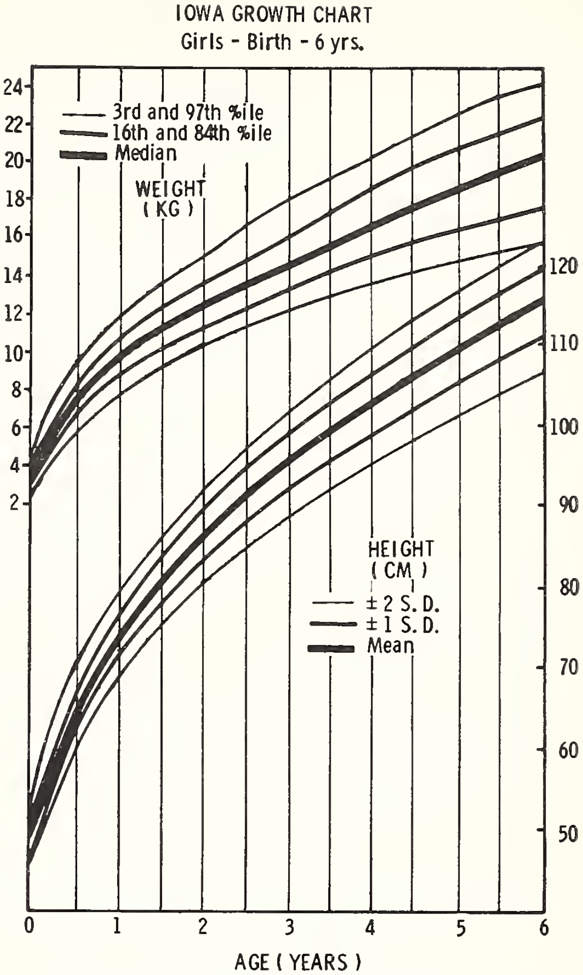

Fig. 3 Standard height-age and weight-age curves for Iowa preschool girls (zero to six years).

close observation until it is established that growth is at a normal rate. In Fig. 4, other representative American norms are superimposed on the Iowa growth curves.[14] These graphs demonstrate that the pattern of the growth curves is remarkably similar for these different selected American norms.

Almost 25 years have elapsed since we published the Iowa growth charts.[16] These charts were derived from data collected at the Iowa Child Research Station from 1926 to 1940. Vicker's and Stuart's studies were conducted between 1930 and 1938.[14] The values for length and weight were significantly higher in the Iowa series and the median value for weight for Iowa boys at six months was 8.32 kg and for Boston boys, 8.0 kg. The mean length value for Iowa boys at six months was 68 cm and for Boston boys, 67 cm. For neither of these studies were the values at different ages obtained on a constant sample of infants. In the Iowa study, the majority of the infants were artificially fed and no attempt was made to subdivide the infants according to the type of feeding.

We have recently completed a study of the growth in length and weight through the first six months of infancy for *normal "well-born," healthy*, well-cared-for American infants who were born in Missouri between 1955 and 1962.[17] All infants included in the study had healthy, well-nourished mothers and normal deliveries.

In this study, we compared the growth of infants fed human milk with that of infants fed various common cow's milk formulas and, also, compared the growth of these groups of infants with the 1945 Iowa norms.[16] Figs. 5 and 6 are revised Iowa growth curves for infants with lines added for ±2 S.D. for height as well as lines to represent the third and 97th percentiles for weight.

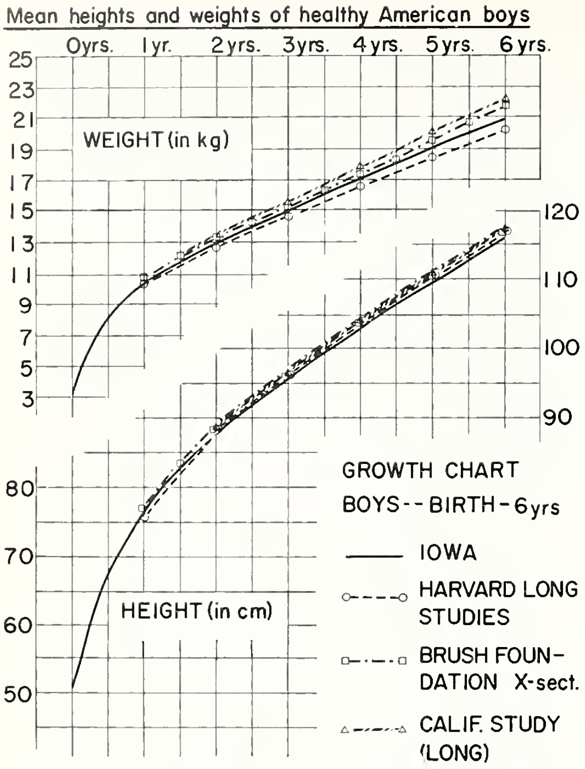

Fig. 4 Representative American growth norms compared to Iowa growth curves.

The growth curves for length throughout the six months' period in the breast-fed infants were almost identical to the Iowa norms (Fig. 7). However, the boys weighed somewhat less than the Iowa norms after the second month. The girls also weighed slightly less than the Iowa norms after the fourth month. In the artificially-fed infants, the boys' growth in length paralleled the Iowa norms with slightly less deviation, and their growth in weight, also, was somewhat less than the Iowa norm (Fig. 8). The girls' growth in length was at a slightly greater rate than the Iowa norm, and their growth in weight was within the range of the Iowa norm. Fig. 9 represents a composite of all infants observed and, as such, is more comparable to the original Iowa data except that the present group is much larger and included a much higher percentage of breast-fed infants. The growth in length of the mixed longitudinal groups of selected normal infant boys was very similar to the Iowa norm. The girls of the same group were slightly taller at birth than the Iowa norm and their linear growth was at a somewhat faster rate than the Iowa norm. The weight gain for these girls was almost identical to the Iowa norm, with less deviation. The boys' growth in weight was somewhat less than the Iowa norm after the second month of life.

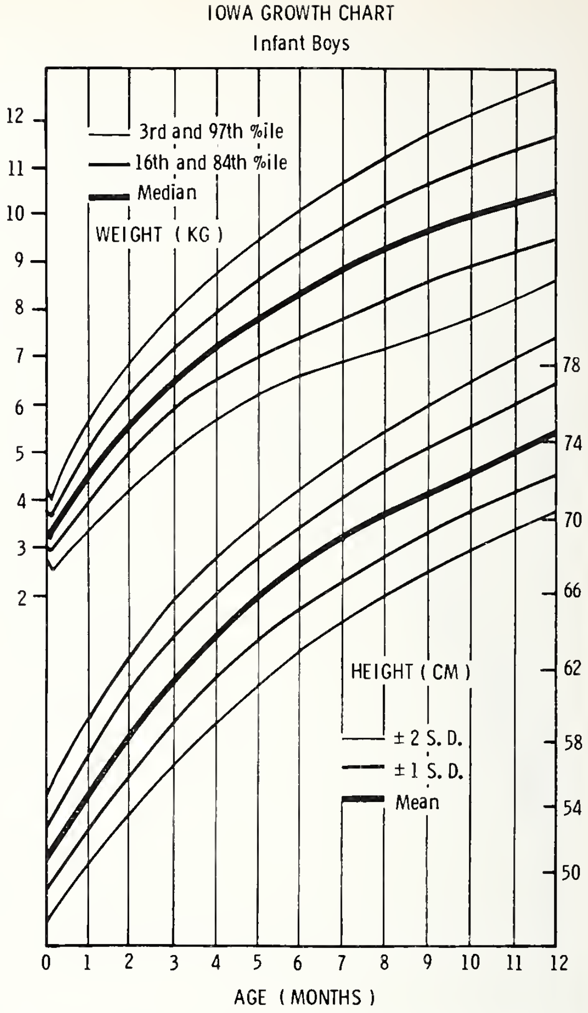

Fig. 5 Standard height-age and weight-age curves for Iowa infant boys (zero to 12 months).

These observations indicate that there have been only minor changes in the pattern of growth during the early months of life of well-born, Midwestern American infants during the last 30 years.

There is evidence that among more highly developed nations, there has been an increase in the mean stature and weight over succeeding generations.[18-22] The secular trend for growth of boys and girls in the United States is depicted in Figs. 10 and 11.[23] Within a given nation, children from economically favored areas are taller and heavier than children from economically underprivileged areas.[24] It is of considerable significance that the heights and weights of school

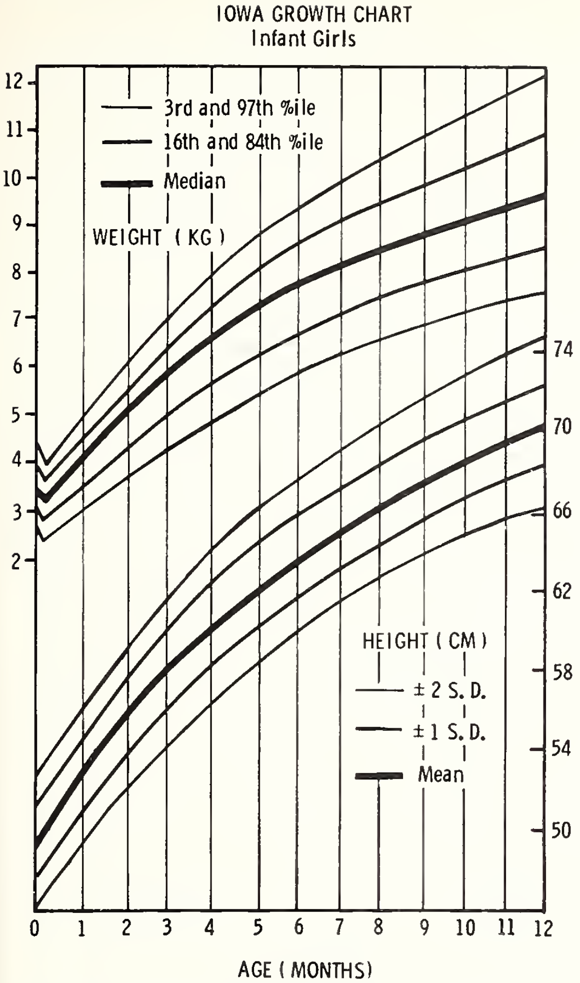

Fig. 6 Standard height-age and weight-age curves for Iowa infant girls (zero to 12 months).

boys belonging to the highest socioeconomic groups in the U. S. A. show practically no change between 1937 and 1959.[25] Figs. 12 and 13 are revised Iowa growth curves for school age children including additional lines for ±2 S.D. values for height and lines to represent the third and 97th percentile values for weight.

There are surprisingly few studies of the growth patterns of Negro children in the United States. Meredith has reported birth weights of large groups of Negro infants (35,589) and white infants (109,157) and has found that the Negro babies have a mean birth weight of 150 gm less than the white babies.[26] Data of Crump suggest that the differences in birth weight are related to socioeconomic factors rather than ethnic factors.[27]

Fig. 14 represents the mean heights and median weights of 134 healthy Negro children

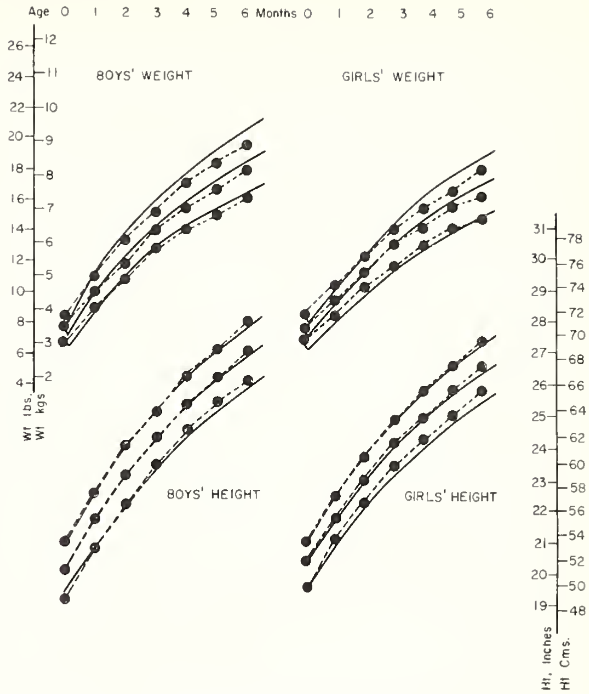

Fig. 7 Combined total of 158 boys and 135 girls who were breast fed from birth. Some had supplemental vitamins after first week of age; some had none. Some had additional of solid food after second month of age; some had none until after six months of age.

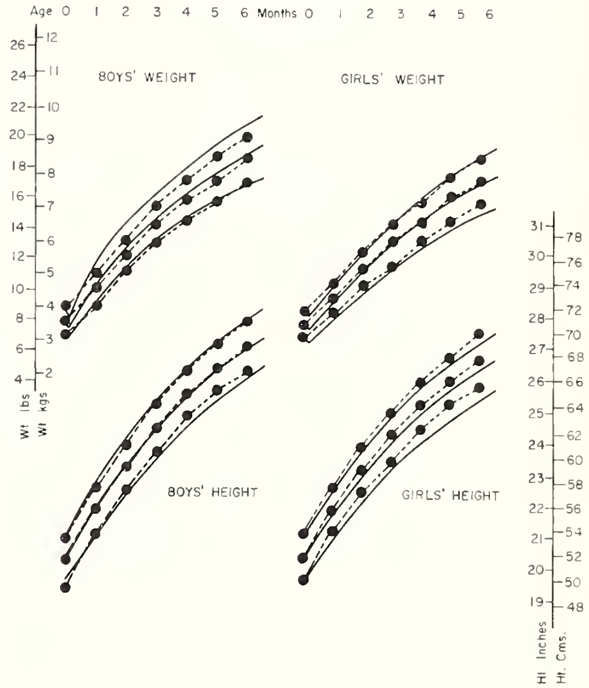

Fig. 8 Combined total of 153 boys and 153 girls who were artificially fed from birth with supplemental vitamins after the first week and addition of solid food after the second month of age.

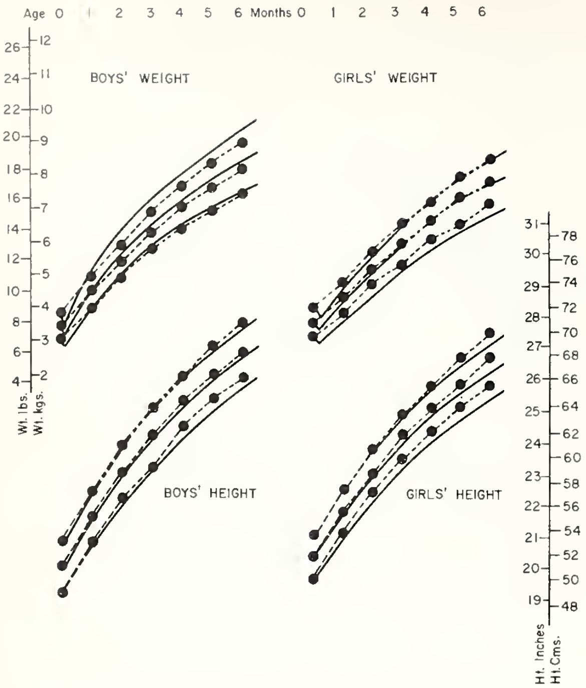

Fig. 9 Combined total of 311 boys and 288 girls who were both breast fed and artificially fed. Some had supplemental vitamins after the first week of age; some had none. Some had addition of solid food after second month of age; some had none until sixth month of age.

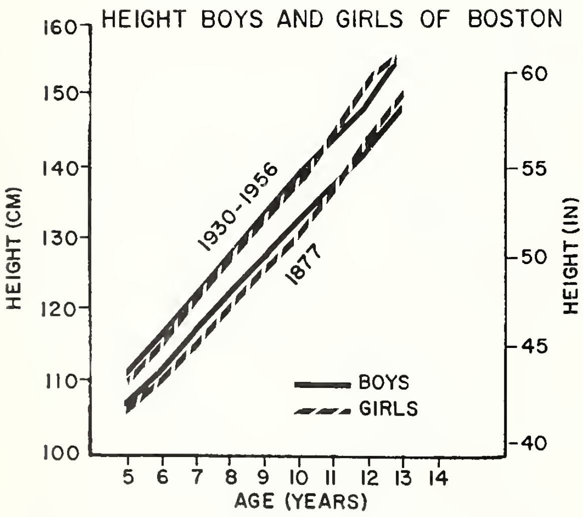

Fig. 10 Secular trend for growth of American boys and girls in Boston.

living in Columbia, Mo. All of these children had a normal hematological picture and normal serum protein values.[28] A study of California Negro school children, completed in 1940, revealed that from five to 18 years, there was practically no difference in height or weight for age between white and Negro boys or girls.[29] Other studies in progress tend to indicate little difference in the growth pattern of the Negro in the United States from the white race except for minor differences in early infancy. Figs. 15 and 16 show the comparison of growth data on preschool children (from birth to six years) studied by Dr. Eppright and coworkers.[30] This nutrition survey included 3,444 children from 2,000 households in 12 North Central States (Fig. 17) including Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, Nebraska and Kansas. The slight differences may be related to the fact that the sample is random and included people of all socioeconomic levels with a relatively low level, on the whole, of knowledge of nutrition. On the other hand, the Iowa growth standards were established from high socioeconomic groups which

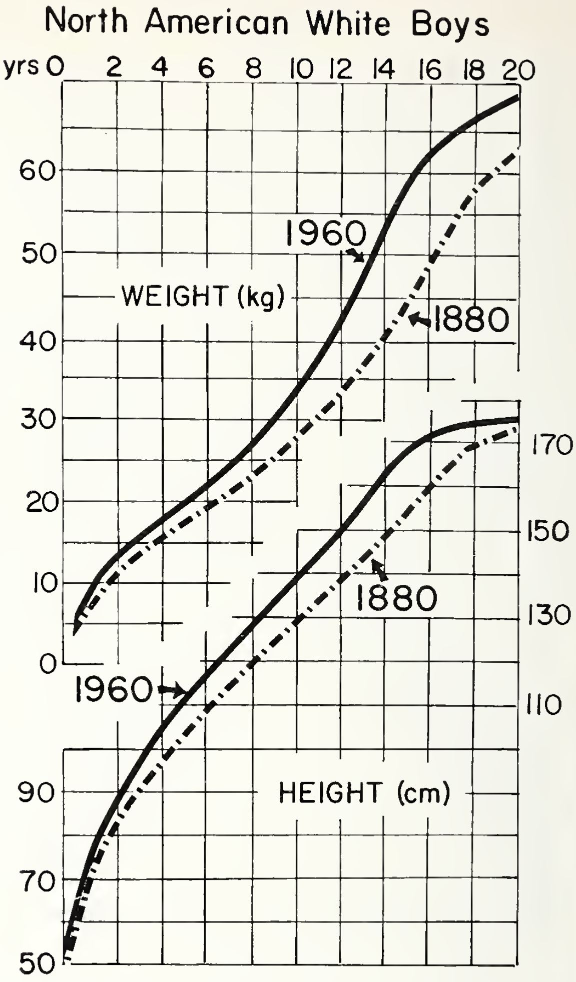

Fig. 11 Secular trend for growth of American boys from 1880 to 1960.

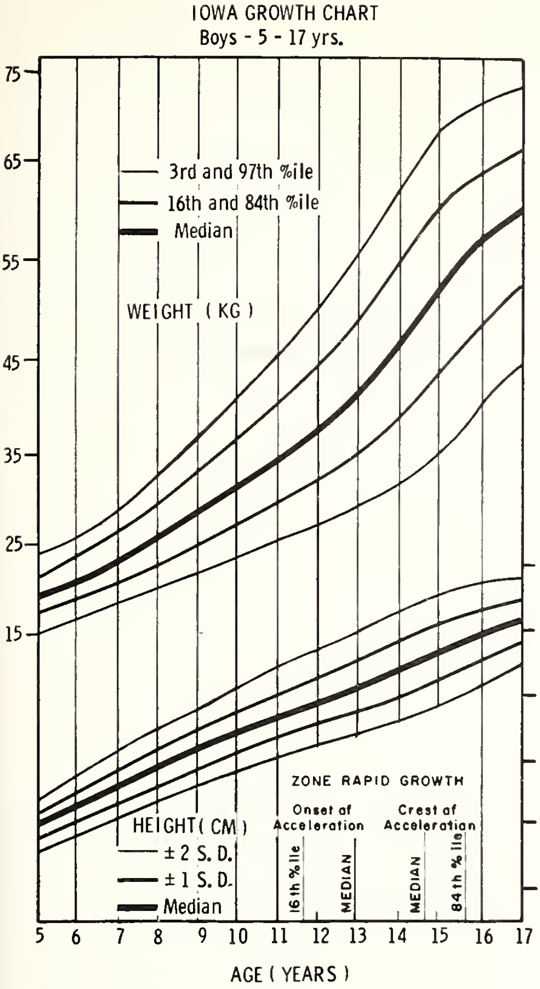

Fig. 12 Standard height-age and weight-age curves for Iowa school boys (five to 17 years) (15) (Zone of rapid growth) (Meredith) (40).

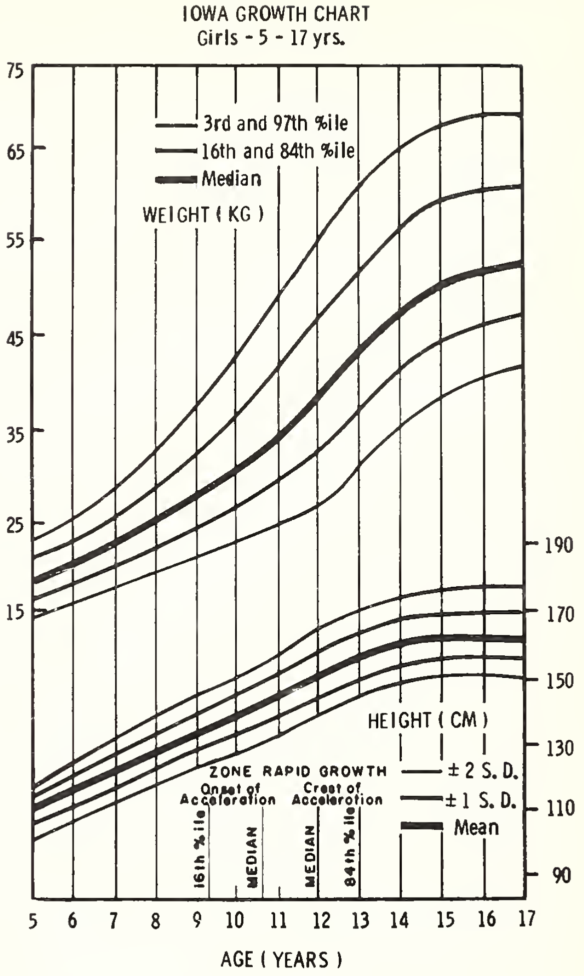

Fig. 13 Standard height-age and weight-age curves for Iowa school girls (five to 17 years) (15) (Zone of rapid growth) (Meredith) (40).

had professional nutritional guidance. It is, however, interesting to note that a purely cross-sectional study of this nature should yield results similar to the longitudinal analysis. This study provides additional confirmation of the value of the Iowa growth standards for nutritional surveys including large and random populations.

In general, the young infant in the U. S. A. occupies a favored position for normal growth because of better parental education concerning his needs and closer medical supervision. Growth in height and weight of well-nourished healthy children begins to decelerate during the latter part of the first year at which time the rate of muscle growth begins to accelerate. This is the age period in which children in developing areas of the world frequently have varying degrees of protein malnutrition, especially after weaning, when the limited intake of animal protein is drastically cut and the child becomes dependent upon the mother's resourcefulness in obtaining and selecting local and seasonal cereals, vegetables and fruits. During this same age period, children also have more frequent and severe infections which may seriously interfere with food intake and utilization. Frequency, severity and manifestations of malnutrition vary considerably in degree and kind in different areas of the world, between different sections of a country, at different ages and in different social groups. A decrease in growth rate precedes other socalled "specific" signs in most types of malnutrition.

In assessing nutrition from growth curves, the individual measurements are first evaluated in relation to the height-age curve as satisfactory

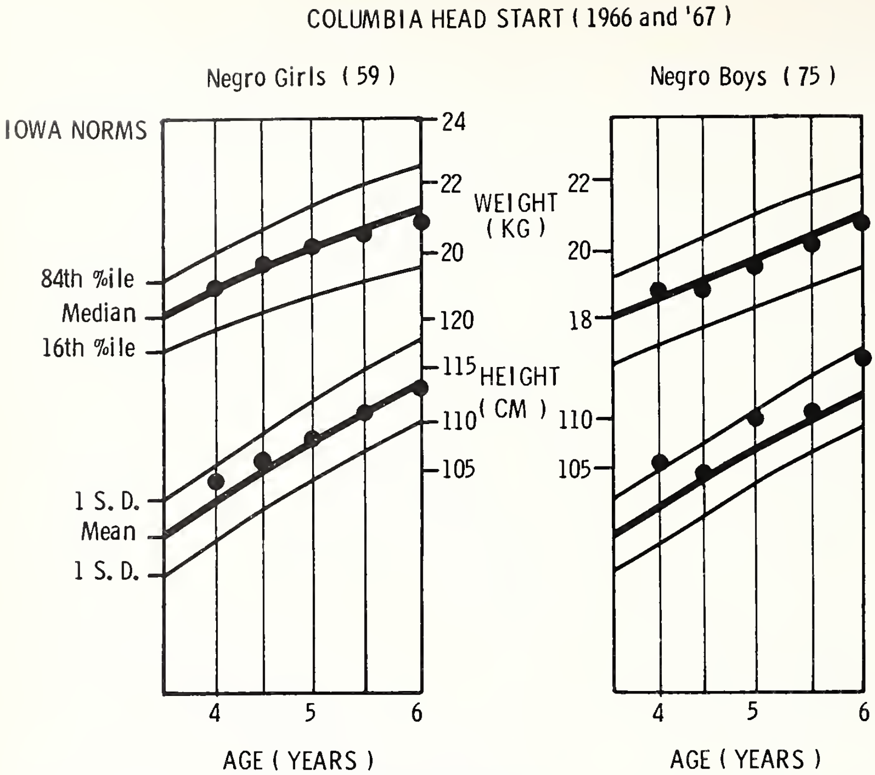

Fig. 14 Mean heights and median weights of 134 healthy Negro children.

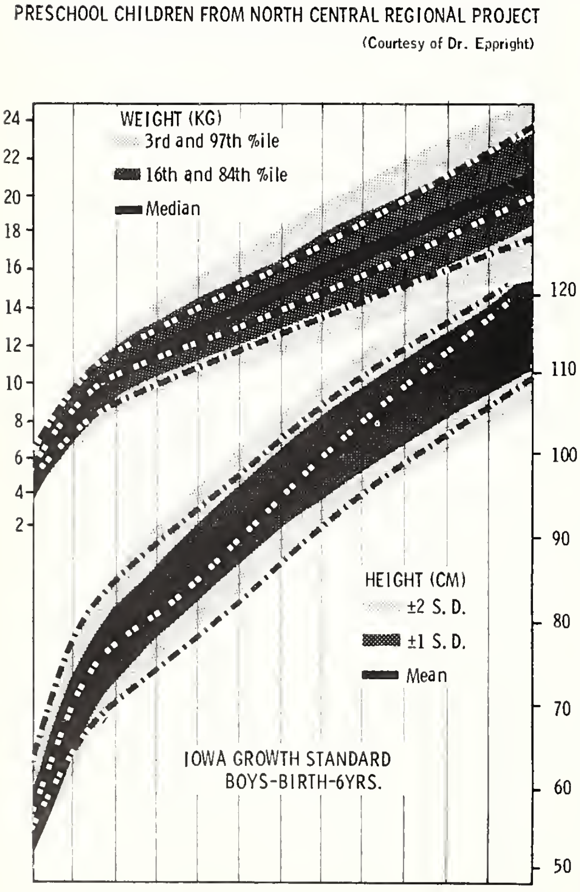

Fig. 15 Growth of preschool boys from North Central Regional Project.

or unsatisfactory in respect to whether the child is maintaining his established build and making normal progress. Rate of growth is essentially independent of size. Rate of growth in length is a better criterion of adequacy of nutrition in infancy and childhood than are changes in body weight. The relative weight for height is superior to either value alone. Deviations from expected growth may indicate satisfactory or unsatisfactory nutrition, but always warrant an investigation into heredity, environment, history of disease and quality of the diet. The nutritional requirements necessary to support "normal" growth of infants and children were reviewed recently by Jackson *et al.*[31]

One of the best provisions for well-being in any period of life is to arrive at that period in good condition. During the nine months of intrauterine life, the infant depends upon the mother. Nearly one half of the protein and one half of the calcium of "well-born" infants are deposited during the last four weeks of gestation. The healthy newborn infant is nine months old at birth. An infant born of a healthy mother is sturdier than one born of a poorly nourished mother. A "well-born" infant has nutritional stores to carry him through the critical early weeks of life. If the child maintains excellent nutrition, he will have stores to be drawn upon during periods of stress and prepubescent growth spurt. The medical problems of pregnancy and maternity are of fundamental concern because the experiences of fetal life and birth are of the utmost importance to the health and development of the infant. Human and animal studies are accumulating evidence that poor nutritional status of the mother is an important factor in maternal illness, fetal deaths, pre-maturity, neonatal deaths and morbidity of the live-born infants.[32]

Tompkins *et al*, in 1955, pointed out that the patients who were 15% or more underweight at the onset of pregnancy had an increased incidence of severe toxemia and an increased number of low birth weight infants.[33] Morbidity and mortality are high in these preterm infants. Symptomatic and asymptomatic hypoglycemia, which may result in permanent neurological damage, is being observed when serial blood glucose determinations are done in low birth weight infants.[34-37]

In 1958 Falkner, in a detailed study on the first three years of life, observed that at birth the baby's immediate growth is heavily influenced by perinatal and maternal factors.[38]

Height and weight measurements should be plotted as a routine procedure in pediatric practice to provide a simple graphic picture of the child's growth compared to a large group of normal children. These deviations then must be interpreted in the light of the medical and social history of the child and his physical examination. If these figures are accurate and obtained over a period of time for a given child, his rate of growth under a given regimen of living will become known. One also will have a fair index to the build of the individual he is observing. In periods of very rapid growth when the organism is under metabolic stress, such as infancy and the prepubertal spurt, the probability of nutritional imbalance is increased. At all ages, nutritional inadequacy would more likely be recognized in its incipiency if an accurate record of the child's growth is kept and appraised.

Growth rate of children is one of the most simple, inexpensive, reliable and important tools available as an index of nutritional status. A conscientious, nonprofessional person can easily be taught to accurately measure infants and children and plot the values on a graph. Nutritional surveys should always include observations on the length or height as well as the weight of the children.

PRESCHOOL CHILDREN FROM NORTH CENTRAL REGIONAL PROJECT
(Courtesy of Dr. Eppright)

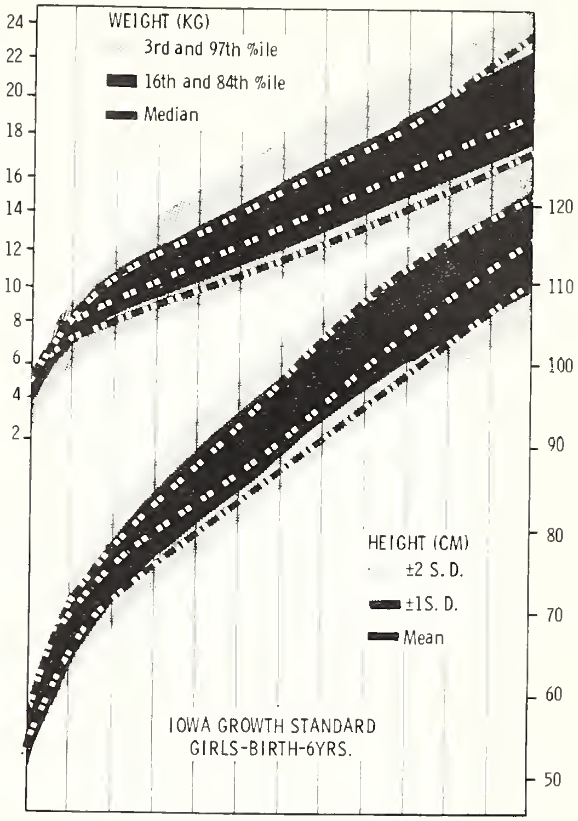

Fig. 16 Growth of preschool girls from North Central Regional Project.

Acknowledgement: The author wishes to express appreciation to Dr. Ercel S. Eppright for permission to publish Figs. 15, 16 & 17.

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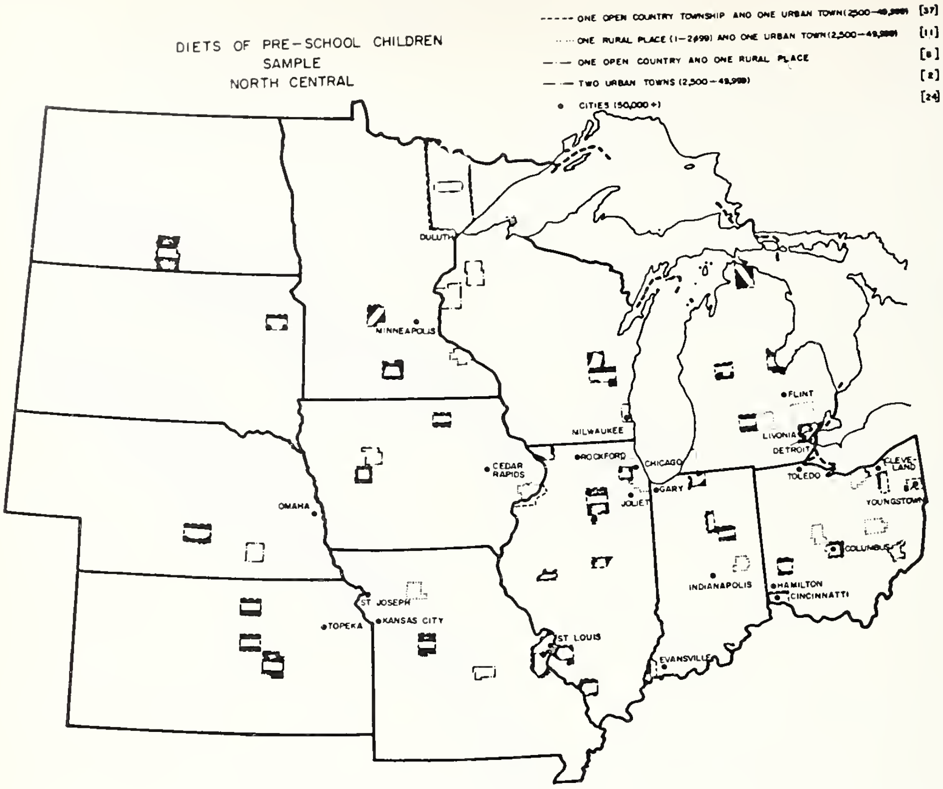
DIETS OF PRE-SCHOOL CHILDREN
SAMPLE
NORTH CENTRAL
ONE OPEN COUNTRY TOWNSHIP AND ONE URBAN TOWN (2,500–49,999) [37]
ONE RURAL PLACE (1–2,499) AND ONE URBAN TOWN (2,500–49,999) [11]
ONE OPEN COUNTRY AND ONE RURAL PLACE [8]
TWO URBAN TOWNS (2,500–49,999) [2]
CITIES (50,000+) [24]
DULUTH
MINNEAPOLIS
MILWAUKEE
FLINT
LIVONIA
DETROIT
TOLEDO
CLEVELAND
YOUNGSTOWN
ROCKFORD
CHICAGO
GARY
JOLIET
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OMAHA
COLUMBUS
INDIANAPOLIS
HAMILTON
CINCINNATTI
ST JOSEPH
KANSAS CITY
TOPEKA
ST LOUIS
EVANSVILLE

Fig. 17 Preschool children from North Central Regional Project.

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President's Message

I, personally, am tired of hearing government planners, professional do-gooders and vote-seekers blame doctors and the American Medical Association for the physician shortage.

During the depression, there was a lack of demand for the services of doctors. Now, demands are so great that a serious physician shortage has developed in many areas.

There are a number of reasons for the present physician shortage. They include:

1. Congress has appropriated several billion dollars for medical research in recent years. This worthy cause has lured thousands of physicians away from the patient care field.
2. The growth of industrialization and, with it, prepaid medical insurance for hospital and medical care has increased demands far above expectations.
3. The armed forces have taken thousands of our young doctors.
4. Our affluent and better educated society demands more sophisticated medical care.
5. Medicare, Medicaid and the Regional Medical Program have all contributed to the physician shortage.

The doctors of our nation and the AMA are not responsible in any way for any of the above listed factors, but we are receiving the blame.

Doyle C. McCraw, M.D.

Now the planners are demanding compulsory, across-the-board prepayment "insurance" or taxes to buy medical services and hospitalization for everyone, regardless of need. They demand elimination of deductibles, addition of drugs and the elimination of the charge for part B of Medicare. Any move in this direction would greatly increase the physician's work load.

What must be done?

Obviously, little can be accomplished by physicians working longer hours. Most of us are working too many hours now.

There are numerous schemes for increasing our efficiency. These are usually the ideas of nonmedical people or come from those not engaged in patient care—and compare to the advice of a bachelor on how to raise children.

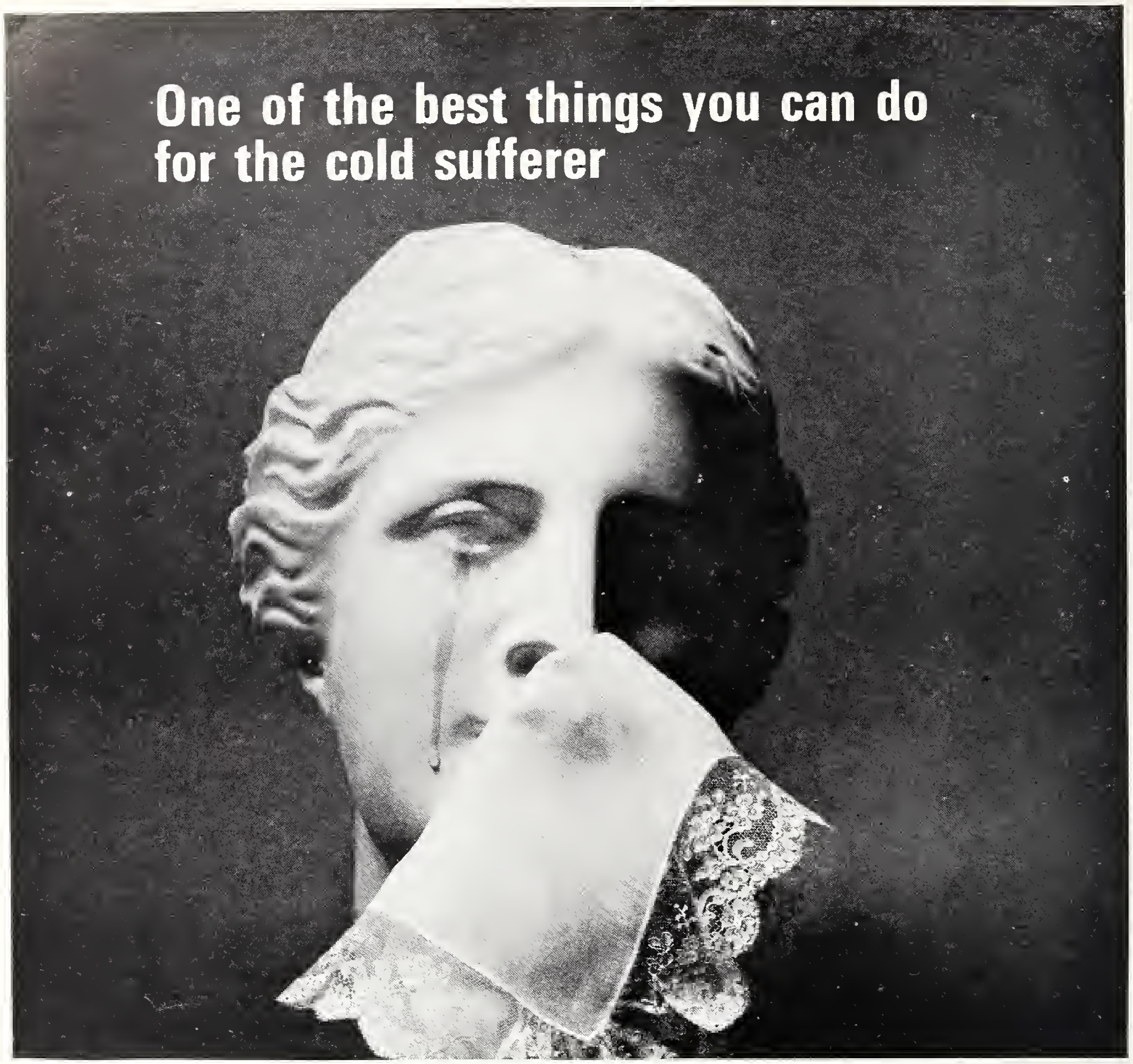
Many call for the training of ancillary personnel including doctor's assistants. The latter idea may be more practicable than I believe it to be. I have asked many of my doctor-friends if they like the idea of a "doctor's assistant." A large percentage say "yes" but when asked if they would be willing to pay a man $200 to $300 a week, they are not so certain. They also worry about delegating authority while still bearing the responsibility.

In Missouri, we have a great opportunity to increase the number of our own medical graduates by starting a new state-supported school in Kansas City and subsidizing the private medical schools. It will cost money to do this. With a state budget of more than $1 billion dollars yearly, however, we should be able to afford new funds for training more physicians.

A special session of the legislature, which is scheduled to convene during September, is expected to increase taxes to make more money available for medical education, among other items. It is up to each physician to remind his legislators that money must be spent on medical education to alleviate the doctor shortage.

Students are available for the new school at Kansas City and to boost enrollment at our other medical school. This is evidenced by the 1,000 applicants for the freshman medical class this year at the University of Missouri. We should never be satisfied until every boy or girl who is mentally capable and willing is permitted to study medicine.

In a future report, I hope to give you some practical ideas for recruiting our own graduates to practice in Missouri. We must succeed in this task. It is a speedy way to start alleviating the physician shortage.


One of the best things you can do for the cold sufferer

Ornade® Spansule® brand of sustained release capsules

Trademark

Each capsule contains 8 mg. of Teldrin® (brand of chlorpheniramine maleate); 50 mg. of phenylpropanolamine hydrochloride; 2.5 mg. of isopropamide, as the iodide.

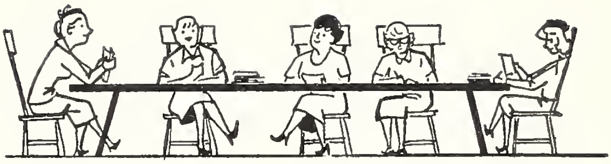
Prompt relief from nasal congestion and hypersecretion due to colds.

Before prescribing, see complete prescribing information in SK&F literature or *PDR*.
Contraindications: Glaucoma, prostatic hypertrophy, stenosing peptic ulcer, pyloroduodenal or bladder neck obstruction.
Precautions: Use cautiously in the presence of hypertension, hyperthyroidism, coronary artery disease; warn vehicle or machine operators of possible drowsiness.
Usage in Pregnancy: Use in pregnancy, nursing mothers and women who might bear children only when potential benefits have been weighed against possible hazards.
Note: The iodine in isopropamide iodide may alter PBI test results and will suppress I^{131} uptake; discontinue 'Ornade' one week before these tests.
Adverse Reactions: Drowsiness; excessive dryness of nose, throat or mouth; nervousness; insomnia. Other known possible adverse reactions of the individual ingredients: nausea, vomiting, diarrhea, rash, dizziness, fatigue, tightness of chest, abdominal pain, irritability, tachycardia, headache, incoordination, tremor, difficulty in urination. Thrombocytopenia, leukopenia and convulsions have been reported.
Supplied: Bottles of 50 capsules.

One capsule q12h for round-the-clock relief

SK&F **Smith Kline & French Laboratories**

Woman's Auxiliary



Welcome to Our Fall Conference!

Do the words, "Fall Conference," have any special meaning for you, Doctor? Let me tell you about this Auxiliary work-study session to be held in Jefferson City on October 29-30 at the Ramada Inn.

The Conference provides two days of information, inspiration and fun. It is open to all Auxiliary members. The President and President-Elect are planning the program and the Conference Chairman will make all other arrangements.

Mrs. James A. Reid, President

This year, we are stressing three areas of endeavor. The first is MEMBERSHIP. You, Doctor, can help the Auxiliary in this respect. We have approximately 4,000 physicians in Missouri, but only 1,800 Auxiliary members. Do encourage your wife to join either in an organized county or as a member-at-large.

Our second concern is CHILDREN and YOUTH. Visual aids on this subject will be available for showing and discussion in the county auxiliary and the community.

The third area will be HEALTH CAREERS: HEALTH MANPOWER, and Mrs. Wendell Roller, National Health Careers Chairman, and Mrs. Max Olsen, North Central Regional Health Careers Chairman, will be our special guests. During the AMA Convention, Dr. Dwight Wilbur stressed the severe shortage of health manpower and said that this must be our major concern. He stated that we need one million people in the health care industry.

All of the Auxiliary Committee Chairmen will be present at the Conference and available for helpful suggestions.

All work and no play makes a dull Auxiliary, so we will tour the Governor's Mansion in Jefferson City and enjoy a dinner on Wednesday with special entertainment. Mrs. Warren E. Hearnes and her drama-musical group will present "Who Burned the Biscuits?"

Our National President, Mrs. John Chenault, has made the following statement:

> "Let us direct our energy toward achieving better health conditions and use our imagination in developing projects and programs which will meet the health needs of our communities. . . . As we work with our medical societies let us be ready to stand up and be counted as we speak with pride for those things which are right with American medical practice."

This tells the Fall Conference story. We invite and encourage you to accompany your wife for these two days of relaxation. We urge you to attend the dinner. We know you will enjoy it.

Come along and make new friends and renew old acquaintances!

EDITORIALS

LET'S MEET IN THE MILE-HIGH CITY

The Mile-High City. The Queen City of the Plains. That's Denver—site of the 23rd Clinical Convention of the American Medical Association.

Colorado's capital city gains its nicknames, of course, from its altitude above sea level and its position at the western edge of the Great Plains near the foothills of the Rockies.

This Clinical Convention, scheduled for November 30 through December 3, is the third to be held in Denver. The most recent was in 1961. The first was in 1952.

Denver is unique in many ways. Its park system includes 13,448 acres outside the city limits in the surrounding mountain area. (There also are numerous parks within the city and 26 miles of parkways.) Even in late November and early December, the temperature can climb into the 60's. (It also can be breezy and snow sometimes makes a brief appearance, so it's well to bring a varied wardrobe.)

Headquarters hotel for the 23rd Clinical Convention is the Denver Hilton, towering over the downtown area and overlooking the state capitol. (The 13th step on the west side of the capitol is marked by a plaque exactly 5,280 feet above sea level.)

Scientific sessions will be in Denver's convention complex. There are 165,000 square feet of exhibit space, seating for 24,000 and 22,055 square feet of new meeting rooms completed in 1966.

Denver has a population of a half-million, and there are more than a million people in the metropolitan area which includes Denver, Jefferson, Arapahoe, Adams and Boulder counties.

When snow falls, roads are cleared and sanded promptly, so travel in and around Denver remains uncomplicated for those wishing to explore the sights and activities of this dramatic locale.

The mountains, of course, are a major attraction. Colorado is the highest state in the union with an average elevation of 6,800 feet. It has 53 peaks above 14,000 feet.

Denver itself has a number of professional and collegiate athletic teams, art and natural history museums, legitimate theater, a symphony orchestra and a variety of restaurants and night clubs.

Golf and tennis are year-around sports in the Denver area, even in winter when skiers are gliding over Colorado's powder snow only 60 miles away. The front range of the Colorado Rockies is a half-hour drive from downtown Denver, and possible trips include Pike's Peak, the Central City gold mining area, Estes Park, Air Force Academy, Rocky Mountain National Park and other Colorado cities.

Thus, the Denver area offers the physician and his family a refreshing change. And the professional program planned for AMA's 23rd Clinical Convention offers the physician the very latest in a variety of areas vital to his practice.

PATIENT CARE

The flight of Apollo 11 was an unqualified success. It was not only a tribute to the spirit and courage of man, but also a dramatic victory for pure science. Some have questioned the spending of $34 billion with little hope of practical dividends, but I think that history will show the money was well spent. Benefits will come. There will be an increase in our knowledge of the universe. There will be spin off from technological development. Most important, perhaps, is the boost we got in our faith in ourselves. Aside from international politics, the issue was clear cut from the beginning. Immediate benefits were neither promised nor expected. This was a challenge that man ultimately had to accept. We are glad that Americans did it.

In medicine, the issues are not so clearly defined. Since World War II, government and private sources have poured billions into what can only be described as a crash program to eliminate death. Congress has been sold the concept that if sufficient funds are appropriated, cancer can be conquered, heart disease will be cured and we will all live happily and healthfully forever after. Americans, it seems, are obsessed with fear of death and worship of technology. Although much good has been derived from this research, it must be obvious that the goals we are pursuing are unrealistic. Death appears to be an essential part of life and there is no cure for it. While scientific research is the only key to the future, there are practical limits to what it can accomplish. Meantime, suffering humanity continues to require our services.

The growing crisis in our health care delivery system is forcing us to restudy the role medicine is to play in a modern society. Its role in antiquity was simple. It consisted of attending the sick. Cure, if possible—relief, if not—human compassion in either event. In our complex society, care of the patient is much more difficult and impersonal and increasingly expensive. But, it is still the central theme of all medical endeavor. It is a pursuit no less noble or rewarding than prolongation of life. When it does become a secondary consideration, man is a much less attractive species.

What is needed is better balance in our approach to health care problems. Scientific research is important and must be continued. But patient care is equally important and in recent years has not received the emphasis and support it deserves.

SHERMAN M. STEINZEIG, M.D.
President, Wyandotte County Medical Society
Greater Kansas City Medical Bulletin

QUESTIONS

A wise man once said, "What I tell you depends entirely on the questions you ask me." He was so right and his statement so philosophical we need not discuss it. However, there are some among us who do not understand his remark.

Recently, we had an opportunity to read some examination papers and here is one that caught our eye. Question (to sixth grade pupil): "Do you know the name of the Capital of Portugal?" Answer—"No" —grade—zero. **Wrong.** The child was not asked the name of the Capital of Portugal. He was asked **if he knew** the name of the city and his honest answer, "No," entitled him to be given credit for a **right** answer to the question as it was asked.

There are many others. Because the question is improperly asked, the questioner does not always get the information he needs. Witness: The lawyer who starts a 250 word question with "Is it your considered and fixed opinion that . . ." and the witness answers the highly involved, grammatically correct question with a flat one word, **No.** Why? Well, it was not his "considered and fixed opinion" even though if he had been asked to express his opinion it might have developed that he and the lawyer were (for all practical purposes) in total agreement. The "considered and fixed" at the beginning of the question reaped a one word honest answer, NO.

Another questioner that should be denied the use of the United States mail is the one who asks, "Do you want a free fur coat?" or "Would you like to receive **free** a complete set of writings of Zane Grey?" The obvious answer to both questions is a flat unequivocal **YES!** But read on—either you must enter a contest—sell ten fur coats—finish a jingle and send in the tops from 40 cans of snuff or you must fill in the missing word from the proverb, "Birds of a feather flock . . ." and then depend upon your luck so far as the drawing of your card from a million other correctly worded proverbs in order to receive the fur coat or the **books.** Anyone answering the questions, "Do you want," with an honest **Yes** should receive a fur coat or a complete set of Zane Grey without any further bother, worry or effort.

Here are two more, and with those we will turn you loose to ask your own questions in your own fashion regardless of what you expect or what you get.

1) "Do you think it will rain on Easter Sunday like it did in 1957?"

2) "*The Reader's Digest* has just published an article about some pills that lower high blood pressure. Do you believe my Doctor knows anything about them?"

St. Louis County Medical Society Bulletin

New Members

Richard C. Carroll, M.D., Crystal Heights Rd., Crystal City, has become a member of Jefferson County Medical Society. Dr. Carroll is a native of Cape Girardeau, received his preliminary education at Southeast Missouri State College and the University of Missouri and his M.D. degree at the University of Missouri in 1967. He is in general practice.

Robert C. Hall, M.D., Gunn Clinic, Versailles, has become a member of Morgan County Medical Society. Dr. Hall is a native of Versailles, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1968. He is in general practice.

Robert J. Hauser, M.D., 515 E. High, Jefferson City, has become a member of Cole County Medical Society. Dr. Hauser is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1963. He specializes in obstetrics and gynecology.

Juanito L. Villahermosa, M.D., 703 W. Highway, Savannah, has become a member of Andrew County Medical Society. Dr. Villahermosa is a native of Layte, Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1956. He is in the practice of general surgery.

Coming out of a depression.

And it can often begin to happen in 3 to 5 days with an antidepressant like Pertofrane. There's a lifting of depressed mood . . . a restoration of psychomotor activity. Patient usually begin to cope, work, maybe play, even enjoy.

It's not all beautiful. Sometimes there are side effects. And not everybody can take the drug. It may even b a slow process. But along with the care and comfort you give depressed patients, consider Pertofrane. Then consider the respo

Please read the prescribing information for full details on contraindications, warnings, precautions, adverse reactions and dosage. It's summarized on the left.

Pertofrane®

desipramine hydrochloride

New 50-mg.
capsules now availabl

Pertofrane® desipramine hydrochloride

Indication: Mental depression.

Contraindications: Do not use MAO inhibitors concomitantly or within 2 weeks of the use of this drug. Hyperpyretic crises or severe convulsive seizures may occur with such combinations; potentiation of adverse reactions can be serious or even fatal.

When substituting Pertofrane in patients receiving an MAO inhibitor, allow an interval of at least 14 days. Initial dosage in such patients should be low and increases should be gradual and cautiously prescribed.

The drug is contraindicated following recent myocardial infarction and in patients with a known hypersensitivity to tricyclic antidepressants.

Warning: Activation of psychosis may occasionally be observed in schizophrenic patients. Due to atropine-like effects and sympathomimetic potentiation, use only with the greatest care in patients with narrow-angle glaucoma or urethral or ureteral spasm.

Do not use in patients with the following conditions unless the need outweighs the risk. severe coronary heart disease with EKG abnormalities, progressive heart failure, angina pectoris, paroxysmal tachycardia and active seizure disorder (may lower seizure threshold).

Desipramine and the parent compound, imipramine, have been shown to block the action of guanethidine and related adrenergic neuron-blocking agents.

Hypertensive episodes have been observed during surgery.

The concurrent use of other central nervous system drugs or alcohol may potentiate adverse effects. Since many such drugs may be used during surgery, desipramine should be discontinued prior to elective procedures.

Caution patients on the possibility of impaired ability to operate a motor vehicle or dangerous machinery.

Do not use in women who are or may become pregnant unless the clinical situation warrants the potential risk, and do not use in patients under 12 years of age.

Because of increased sensitivity to the drug, use lower than normal dosage in adolescent and geriatric patients.

Precautions: Potentially suicidal patients require careful supervision and protective measures during therapy. Discontinuation of the drug may be necessary in the presence of increased agitation and anxiety shifting to hypomanic or manic excitement.

Atropine-like effects may be more pronounced (e.g. paralytic ileus) in susceptible patients and in those receiving anticholinergic drugs (including antiparkinsonism agents)

Prescribe cautiously in hyperthyroid patients and in those receiving thyroid medications, transient cardiac arrhythmias have occurred in rare instances.

Periodic blood and liver studies should supplement careful clinical observations in all patients undergoing extended courses of therapy.

Adverse Reactions: The following have been reported *Nervous System:* dizziness, drowsiness, insomnia, headache, disturbed visual accommodation, tremor, unsteadiness, tinnitus, paresthesias, changes in EEG patterns, epileptiform seizures, mild extrapyramidal activity, falling and neuromuscular incoordination. A confusional state (with such symptoms as hallucinations and disorientation), particularly in older patients and at higher dosage, may require discontinuation of the drug. *Gastrointestinal Tract:* anorexia, dryness of the mouth, nausea, epigastric distress, constipation and diarrhea. *Skin:* skin rashes (including photosensitization), perspiration and flushing sensations. *Liver:* rare cases of transient jaundice (apparently of an obstructive nature) and liver damage. If jaundice or abnormalities in liver function tests occur, discontinue the drug and investigate. *Blood Elements:* bone-marrow depression, agranulocytosis, thrombocytopenia and purpura. If these occur, discontinue the drug. Transient eosinophilia has been observed. *Cardiovascular System:* orthostatic hypotension and tachycardia. Carefully supervise patients requiring concomitant vasodilating therapy, particularly during initial phases. *Genitourinary System:* urinary frequency or retention and impotence. *Endocrine System:* occasional hormonal effects, including gynecomastia, galactorrhea and breast enlargement, and decreased libido and estrogenic effect. *Sensitivity:* urticaria and rare instances of drug fever and cross-sensitivity with imipramine.

Dosage: All patients except geriatric and adolescent 50 mg. t.i.d. (150 mg. daily). Dosage may be increased up to 200 mg. daily. Geriatric and adolescent patients should usually be started with lower dosage (25 to 50 mg. daily) and may not tolerate higher doses. Dosage may be increased up to 100 mg. daily.

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Oct. 2-3	**School Health; School, Sex and Society (Revisited)** University of Kansas School of Medicine Kansas City, Kan.
Oct. 10-11	**M.D. Day** Continuing Education, M.U. School of Medicine Medical Center Auditorium, Columbia 65201
Oct. 12-16	**38th Annual Meeting—American Society of Plastic and Reconstructive Surgeons** Chase-Park Plaza Hotel, St. Louis
Oct. 16-17	**Today's Concept of Care of the Cerebral Palsied** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Oct. 21-22	**Medicine and Religion** University of Kansas School of Medicine Kansas City, Kan.
Oct. 21-24	**Emergency Care and Transportation of the Sick and Injured (Advanced Practical Course)** American Academy of Orthopaedic Surgeons Committee on Injuries, Washington University and St. Louis University Schools of Medicine, American Red Cross, St. Louis Fire Department St. Louis Medical Society, 3839 Lindell, St. Louis 63108
Oct. 22-23	**Definitive and Restorative Care of Occlusive Vascular Disease of Lower Extremities** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Nov. 3-6	**Seminar—Internal Medicine** University of Kansas School of Medicine Kansas City, Kan.
Nov. 11	**Lecture-Discussion Seminar—"Sexual and Marital Problems"** (Six consecutive Tuesdays, 8 PM, no fee) St. Louis U. Department of Neurology and Psychiatry and Metropolitan College 3637 West Pine, St. Louis 63108
Nov. 12-13	**Causes of Mental Retardation** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Nov. 19-21	**Seminar—Recent Advances in Pediatrics** Danciger Institute for the Health Sciences Menorah Medical Center, Kansas City 64110 (AAGP credit)

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Warnings: Reduce usual oral dosage and consider antibiotic serum level determinations in patients with impaired renal function.

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Note: With oxytetracycline, phototoxicity is unknown and photoallergy very rare.

Precautions: Use of broad-spectrum antibiotics occasionally may result in overgrowth of nonsusceptible organisms. Where such infections occur, discontinue oxytetracycline and institute specific therapy. Increased intracranial pressure in infants is a possibility. Symptoms disappear upon discontinuation of therapy.

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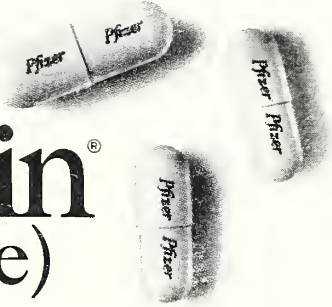

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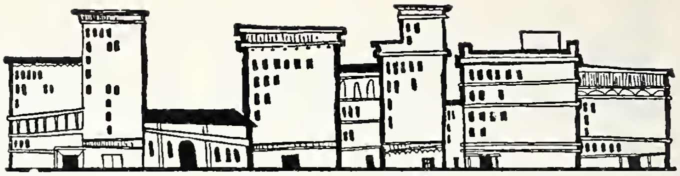


ST. LOUIS UNIVERSITY

Promotions for 42 medical faculty members at the St. Louis University School of Medicine became effective on September 1.

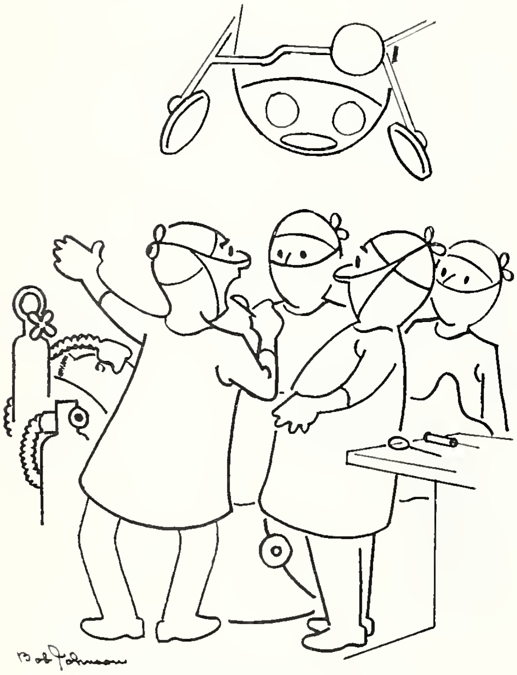
Four faculty members became full professors. They are Drs. James D. Cherry, pediatrics; George Gantner, Jr., pathology; Leonard F. Laskowski, Jr., pathology; and Anthony Martonosi, biochemistry.

Named clinical professors were Drs. Paul A. DeWald, psychiatry; Eugene G. Hamilton, gynecology and obstetrics; and William E. Holt, psychiatry.

Promoted to associate professor were Drs. Goronwy O. Broun, Jr., internal medicine; William J. Longmore, biochemistry; and James M. Martin, radiology.

Named associate clinical professor was Dr. Clement J. Sullivan, internal medicine.

Named new assistant professors were Drs. Richard W. Entrup, internal medicine; Jack G. Jue, pharmacology; William A. Kelly, psychiatry; Papineni S. Rao, reproductive physiology in gynecology and obstetrics; and Krishna B. Singh, gynecology and obstetrics.



"O.K., who said 'Butterfingers'?"

Promoted to assistant clinical professors were Drs. William E. Allen, Jr., radiology; Stephen F. Bowen, Jr., ophthalmology; Harry R. Brady, ophthalmology; Richard J. Dames, internal medicine; William K. Drake, pathology; Alvin R. Frank, psychiatry; Harold Freedman, internal medicine; Walter P. Graul, orthopedic surgery; Clement B. Grebel, internal medicine; Anton P. Heusler, psychiatry; Anna Hyman, psychiatry; and Clyde M. Witt, radiology.

Named senior instructors were Drs. Donald F. Bandle, psychiatry; David L. Beato, internal medicine; Richard J. Ferry, neurology; Guy H. Frumson, orthopedic surgery; John A. Gantz, internal medicine; Jan Thomas Goff, psychiatry; Henry M. Hurd, orthopedic surgery; Otaker Machek, physical medicine and rehabilitation in internal medicine; Leroy F. Ortmeyer, internal medicine; Daniel F. O'Sullivan, surgery; Mary L. Schaef, psychiatry; William L. Skimming, orthopedic surgery; Robert S. Smith, psychiatry; and Robert W. Tatkow, orthopedic surgery.

Announcement of the appointment of seven new medical faculty members was made in late summer. New appointees and their rank included Drs. Byung Ho Choi, associate professor of pathology; George L. Eliceiri, assistant professor of pathology; Frank Ostapowicz, assistant professor of gynecology and obstetrics; Milagros T. Banton, instructor in internal medicine; Myles Hopper, instructor in community medicine; Richard J. Hollocher, instructor in orthopedic surgery; and Anthony J. Rejent, instructor in pediatrics.

St. Louis University will observe Founders Week on October 11-17. Medical alumni can register for Medical Alumni Association affairs at a registration desk to be set up Thursday, October 16 in conjunction with the Medical Dean's reception to be held from 4 PM to 6 PM in Cardinal Glennon Hall. A scientific program will be held for medical alumni on October 17, beginning at 10 AM in the School of Medicine. The annual alumni meeting and dinner-dance will be held at 6:30 PM on October 18 in the Sesquicentennial Room, Busch Memorial Center.

UNIVERSITY OF MISSOURI

Dr. William D. Mayer, dean of the School of Medicine, has announced the appointment of one associate professor and five assistant professors, in addition to previously announced new faculty appointments in the school.

Melvin O. Braaten, Ph.D., holds a double appointment as an associate professor in the departments of radiology and industrial engineering. He has been on the faculty at Duke University since January, 1965 as a teacher of statistics and consultant to students and faculty on statistical aspects of their research problems.

David B. Shear, Ph.D., has joined the department of biochemistry as a teacher and researcher in biophysics. For the past two years he has held a position as assistant professor of physics at the University of Georgia.

Appointed as assistant professor in the department of community health and medical practice and as assistant director of the Missouri Regional Medical Program is James W. Watson III. His academic appointment will include teaching in the health services management curriculum. Mr. Watson has been associated with the General Electric Space Technology Center in systems management for the past three years. Before his retirement from the Air Force he was with the USAF Systems Command Headquarters at Andrews Air Force Base in Maryland.

John A. Saunders, M.D., has been named an assistant professor in the departments of pediatrics and community health and medical practice. Dr. Saunders has been assistant professor of pediatrics at the University of Oklahoma.

Leonard R. Forte, Jr., Ph.D., is an assistant professor in the department of pharmacology. He received his doctorate in pharmacology in 1968 at Vanderbilt University where he was also a research associate. His research interest is in renal pharmacology.

John F. Simonds, M.D., assistant professor in the department of psychiatry, is a specialist in child psychiatry. He recently has been assistant professor of psychiatry at the University of Louisville.

Dr. Philip C. Anderson, assistant dean of the School of Medicine and associate professor of dermatology, has been named a member of the new Council for the National Program for Dermatology of the American Academy of Dermatology.

The Council of 15 members, representing medical schools, private practice, health agencies and the public, will be responsible for studying and implementing the Academy's comprehensive National Program report aimed at controlling skin diseases, which are estimated to cost the nation more than $1.5 billion annually. Proposals in the Program cover patient service, education and research.

A group of physicians at the Medical Center has been selected to participate in a national program to study new therapeutic approaches to the management of cancer. They will be working on therapy for acute leukemia under a program sponsored by the National Cancer Institute.

Dr. Patrick Henry, director of the division of hematology and oncology in the department of medicine, recently appointed to the faculty, will serve as director for the Missouri group, which will carry out cooperative studies with researchers at the Cancer Institute (Bethesda, Md.) and at Roswell Park Memorial Institute in New York.

Collaborating with Dr. Henry in Columbia are Dr. S. Leonard Brubaker, department of medicine; John Lukens, department of pediatrics; John Shively, department of pathology;

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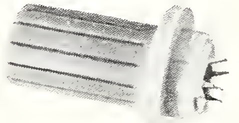

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and Reginald Pugh of Ellis Fischel State Cancer Hospital, who holds a clinical appointment at the School of Medicine.

Emphasis of the Missouri group will be on leukemias and lymphomas. Participation in the program brings the Medical Center further into the national effort against cancer and enables the Center to have access to new and experimental drugs that show promise in the treatment of cancer.

Dr. J. Ned Smith, Jr., associate professor of internal medicine, who has been on the faculty of the School of Medicine since 1956, is the author of a new textbook for medical students on "Essentials of Gastroenterology."

Published by the C. V. Mosby Company, St. Louis, the information and bibliography also will be of interest to graduate physicians. The book is illustrated by many X-ray photographs. In the preface Dr. Smith acknowledges the collaboration of Dr. Kyo R. Lee, staff member in the department of radiology at the Medical Center.

WASHINGTON UNIVERSITY

William W. Sleator, Jr., Ph.D., professor of physiology and biophysics at Washington University School of Medicine, became professor and head of the department of physiology and biophysics at the University of Illinois at Champaign-Urbana.

Dr. Sleator, who came to Washington University in 1949 as an assistant professor, was promoted to associate professor in 1955 and to professor in 1964. In 1966 and 1967, he served as acting head of the department of physiology and biophysics.

His wife, Esther K. Sleator, M.D., was a pediatrician with the St. Louis City Health Department for several years and has served in the St. Louis Children's Hospital outpatient clinic for the past five years.

Edward B. Greensfelder has been elected chairman of the board of directors of Washington University Medical School and Associated Hospitals (sometimes referred to as "WUMSAH"). Mr. Greensfelder succeeds Edwin M. Johnston.

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MISSOURI STATE MEDICAL ASSOCIATION

April 2-5, 1970

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EFSCH Fall Professional Program Set for November 15

"The Challenge of the Dying Patient" will be the theme of the Ellis Fischel State Cancer Hospital and Cancer Research Center's semiannual professional program to be held from 8:30 AM to 5 PM on November 15 at the Holiday Inn West in Columbia.

Presentations will form a multidiscipline approach to the problems of professionals who provide care during the life of the dying patient.

Visiting speakers will include John Vavra, M.D., Department of Hematology, Washington University School of Medicine; Elizabeth K. Ross, M.D., Department of Psychiatry University of Chicago Pritzker School of Medicine; Miss Jeanne C. Quint, R.M., M.S., Assistant Research Sociologist, University of California School of Nursing; and Hans O. Mauksch, Ph.D., Department of Community Health and Medical Practice, University of Missouri School of Medicine—Columbia.

The program also will include the film, "Death," which studies the demise of a terminal cancer patient at Calvary Hospital in New York City.

MSMA members interested in additional information about this program are invited to write to Lester S. Garfinkel, M.D., Department of Medicine, Ellis Fischel State Cancer Hospital, Business Loop 70 & Garth Ave., Columbia, Mo. 65201.

In Memoriam

Snyder, Edward N., M.D., Los Angeles, Calif., a graduate of St. Louis University, 1913; member of St. Louis Medical Society; aged 82; died July 17, 1969.

Green, Stanley L., M.D., Independence, a graduate of the University of Kansas, 1919; member of Jackson County Medical Society; aged 77; died Aug. 6, 1969.

Byars, Louis T., M.D., St. Louis, a graduate of Washington University, 1932; member of St. Louis Medical Society; aged 62; died Aug. 8, 1969.

Miller, Charles W., M.D., Coral Gables, Fla., a graduate of St. Louis School of Medicine, 1912; member of St. Louis Medical Society; aged 82; died Aug. 8, 1969.

Andrae, Robert L., M.D., Louisiana, a graduate of Washington University, 1920; member of Pike County Medical Society; aged 75; died Aug. 12, 1969.

Passman, Harold, M.D., Kansas City, a graduate of the University of Kansas, 1938; member of Jackson County Medical Society; aged 64; died Aug. 14, 1969.

Parker, H. Graham, M.D., Platte City, a graduate of Washington University, 1943; member of Platte County Medical Society; aged 50; died Aug. 18, 1969.

Repetto, Albert M., M.D., St. Louis, a graduate of St. Louis University, 1946; member of St. Louis Medical Society; aged 49; died Aug. 19, 1969.

Edde, Clifford G., M.D., Kansas City, a graduate of Iowa University, 1930; member of Jackson County Medical Society; aged 66; died Aug. 25, 1969.

Fall Council Meeting of Mo. Chapter of ACS

The Fall Meeting of the Council of the Missouri Chapter of the American College of Surgeons will be held on the evening of November 14, 1969 at the Cancer Research Center in Columbia.

Dr. John S. Spratt, Jr., secretary-treasurer, has announced that the date precedes the Ellis Fischel State Cancer Hospital and Cancer Research Center's Fall Professional Program on November 15 and was selected so that interested Council members can attend the program on the following day.

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County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Buchanan County Medical Society

The first fall meeting of the Buchanan County Medical Society was held at the St. Joseph State Hospital on September 3. Fifty-three physicians attended. Dr. John L. Mothershead, president, presided at the session. Dr. Liam O'Brien, superintendent of the State Hospital, and his staff were hosts.

It has been the custom for many years to hold the first meeting in the fall at the State Hospital.

Dr. Carlyn M. Kline, program chairman, introduced the speaker, Dr. R. Eugene Baska of Kansas City, who is a pediatric neurologist. Dr. Baska presented an unusually interesting illustrated discussion on "Learning Disabilities in Children."

Lawrence H. Pifer, M.D., *Secretary*

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SEMI-RETIRED PHYSICIAN—To work in large industrial plant in St. Louis County to do pre-employment examinations and injury cases. Less than 40 hours weekly, depending upon work load; five days weekly. No hospital work, no weekends or night calls. Age is no factor. Contact Box 358, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

PHYSICIAN—Emergency room physician needed for 400-bed General Hospital located in St. Louis area. Excellent compensation, paid vacation, 40 hours or less per week. Ideal position for physician beginning practice. Contact Box 360, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

ASSOCIATE WANTED—Attractive opening in St. Louis for young, board eligible urologist. Senior partner is retiring. Contact Box 359, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

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GENERALISTS—Tired of the Solo Rat Race? Medical Arts Clinic in Farmington is expanding its general medicine services. Three minutes from a new hospital in Eastern Missouri's nicest small town. C. W. Chastain, M.D., Farmington, Mo. 63640.

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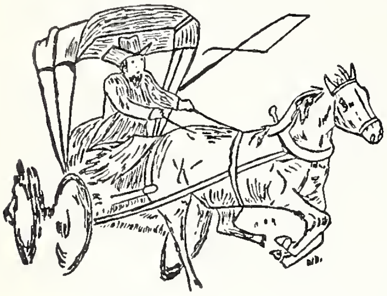
Missouri Medicine in Review



FORTY YEARS AGO

Washington University School of Medicine, which has done much to make St. Louis an international medical center, announced in this year's catalog that, beginning in 1931, it will require a full four years of college preparation of every applicant for matriculation. Much as the world needs more physicians, explained Dr. McKim Marriott, dean of the medical school, its greatest need is for better physicians.

The Inter-State Postgraduate Association of North America held its meeting in Detroit on October 21-25. Among the foreign guests who attended the sessions are Dr. J. M. LeMee, otolaryngologist, Paris; Dr. Thomas K. Monro, Regius Professor of Medicine, Medical Department, University of Glasgow; Sir Frank Colyer, dental surgeon, London; Prof. E. F. Muller, Medical Department, University of Hamburg; Dr. T. de Martel, surgeon, Paris; Dr. David P. D. Wilkie, F.R.C.S., Professor of Surgery, Medical Department, University of Edinburgh; and Dr. Ferdinand Sauerbruch, Professor of Surgery, University of Berlin.

The achievements made in the medical and allied professions during the past 100 years through the aid of pure and applied science may be graphically shown at the Chicago World's Fair Centennial Celebration to be held in 1933.

TWENTY-FIVE YEARS AGO

The loss of Dr. Frederick J. Taussig, Chairman of the Executive Committee of the Medical Board of the Barnard Free Skin and Cancer Hospital, has been a severe blow. Friends have established a Dr. Frederick J. Taussig Memorial Fund for research on cancer which amounts to $11,698 at present.

The Kansas City Southwest Clinical Society has announced that the dates for the 22nd Annual Fall Clinical Conference will be October 2, 3, and 4, 1944. The broadside issue of *The Kansas City Medical Journal* carries the list of distinguished guest speakers, scientific presentations and program of symposia to be presented by members of the society.

Surgery is an important aid in cancer treatment. Drs. M. G. Seelig and D. J. Verda have gone far toward removing the talcum power hazard in surgery. They have introduced other powders to take the place of talcum. If they escape in the peritoneal or other cavities during operations, they are innocuous and do not give rise to adhesions and granulomata. On the invitation of the W. B. Saunders Co. of Philadelphia, Dr. Seeling is acting as editor in the preparation of a volume in the series of "Surgical Clinics of North America" to be devoted entirely to papers on various aspects of cancer.

TEN YEARS AGO

Harry K. Cohen, M.D., Kansas City, recently was installed as president of the Kansas City Academy of General Practice. Other newly-elected officers are Drs. Frank A. O'Connell, president-elect; J. Max Haight, secretary; and Edward A. Samuelson, treasurer.—An award for outstanding work in advancing knowledge of the iron in the prevention and cure of iron-deficiency anemia, the Goldberger award was presented to Carl V. Moore, M.D., St. Louis, at the opening session of the American Medical Association.

Dr. Jonathan E. Rhoads, professor of surgery and surgical research at the University of Pennsylvania, Philadelphia, delivered the 25th annual Leo Loeb Lecture this year at Washington University. The lecture is sponsored by Mu Chapter, Phi Beta Pi medical fraternity at the University in honor of Dr. Leo Loeb, professor of pathology at the Medical School. Dr. Loeb, who is 80, became professor of comparative pathology at Washington University in 1915 and was head of the department of pathology from 1924 until his retirement in 1937.

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Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Missouri Legislators To Be Speakers At Officer's Conference

Two members of the Missouri General Assembly have accepted invitations to participate on the program for the third annual Missouri State Medical Association County Society Officer's Conference scheduled for Saturday afternoon and Sunday morning, January 31 and February 1, 1970 at the Ramada Inn, Jefferson City.

Walter T. Gunn, M.D., chairman of the MSMA Public Service Committee, announced that Democratic State Senator Albert Spradling, Jr., of Cape Girardeau and Republican Representative William Phelps of Kansas City will participate in the Saturday afternoon program along with MSMA Legislative Matters Chairman John I. Matthews, M.D.

Dr. Gunn announced earlier that United States Senator Thomas F. Eagleton of St. Louis will be the banquet speaker at the Saturday night event.

Meeting Opens Saturday Afternoon

The Third Annual Conference opens at 1:45 Saturday afternoon after a morning meeting of the Association's Council. A Sunday morning session is also scheduled. It will open at 8:30 A.M. The conference concludes with a buffet at noon on Sunday.

Senator Spradling, a practicing attorney, is a native of Cape Girardeau. He is a graduate of the Southeast Missouri State College and received his law degree from the University of Missouri, Columbia. He served as a special agent for the Federal Bureau of Investigation.

The Southeast Missouri Senator served as city attorney for Cape Girardeau before being elected to the Missouri Senate in 1952 to complete the term of Senator D. W. Gilmore, who resigned. Senator Spradling was re-elected to the Senate in 1956, 1960, 1964 and 1968. In 1957-1958 he received the St. Louis Globe-Democrat award as the member of the Legislature showing the greatest growth in leadership. In 1959-1960 he received that newspaper's award as the second most valuable member of the Legislature and in 1961-1962 received the most valuable legislator award.

Senator Was President Pro-Tem

In the Seventy-first and Seventy-second General Assemblies he was elected president pro-tem. In the Seventy-fourth General Assembly, he served as chairman of the committee on Banks and Banking and Financial Institutions. In the Seventy-fifth General Assembly he was vice chairman of the Public Health Committee.

Representative Phelps is also a practicing attorney. He serves from the Fourth Legislative District in Kansas City. He is a native of Nevada, Mo., and a graduate of the University of Missouri, Columbia, with an A.B. Degree in economics and business and a law degree.

He was first elected to the House of Representatives in 1960 and was re-elected in 1962, 1964, 1966 and 1968.

Handled Earnings Tax Measure

Despite being a member of the minority party, Representative Phelps successfully handled the Kansas City earnings tax bill on the floor of the House during the recent regular legislative session and the measure won approval of both the House and the Senate and was signed into law.

Committee assignments for Representative Phelps include: Appropriations, Economics and Judiciary.

MSMA News

ANNUAL SESSION April 2-5, '70

"April 2-5, 1970" are the dates to be remembered by every member of the Missouri State Medical Association because they are the dates for the organization's 112th Annual Meeting scheduled at Hotel Muehlebach, Kansas City.

Members of the Association's Scientific and Postgraduate Education Committee have been hard at work since last Spring making plans for the 1970 meeting which will be one of the largest in MSMA history.

Richard W. Yore, M.D., St. Louis, Chairman of the Committee, said that program plans for the 112th Annual Session are well advanced. To complete plans for the annual meeting, Dr. Yore has called a second meeting of his committee on Sunday, November 23 in Jefferson City.

A number of specialty medical organizations, MSMA committees and voluntary health organizations have accepted the responsibility for sponsoring portions of the Annual Session program.

Sponsors Named

Among those groups participating will be: Rheumatism Society, MSMA Committee on Disaster Medical Care and National Defense, MSMA Maternal Welfare Committee, Missouri Acade-

(Continued on back page)

Earlier Date For Certification Under Medicare

Medicare certification and recertification dates will be earlier starting January 1, 1970. Under a new HEW regulation, physicians must certify the need for hospital services on the 12th day of hospitalization, rather than on the 14th day as now required. First recertification will be required on the 18th day instead of the 21st.

HEW Secretary Robert Finch said the move is intended to decrease the number of "unnecessarily long hospital stays."

The Social Security Administration has announced details of Medicare hospital insurance deductible and coinsurance increases.

Rates will be effective for benefit periods starting in 1970. The deductible will rise from $44 to $52 for the first 60 days of inpatient hospital care and coinsurance amounts for the next 30 days will be $13 per day. The rate for each lifetime reserve day used will be $26. For the 21st through the 100th day of services in an extended care facility, the coinsurance will be $6.50 per day.

Missourian Named To Study Committee On Health Insurance

A Missourian, Mr. Nathan Stark, a Kansas City businessman active in health affairs, has been named as one of three members of a committee to study national health insurance for the HEW's Task Force on Medicaid.

Named to serve along with Mr. Stark were John R. Hogness, M.D., University of Washington Medical School Dean; and Margaret Mahoney of the Carnegie Foundation.

Appointments were announced by Walter McNerney, Blue Cross president and head of HEW's Task Force on Medicaid.

Truth in Lending guide

As reported in *American Medical News* June 30, the federal Truth in Lending Act which became operative July 1 will affect some physicians. However, recent directives indicate that the physician's responsibility for written disclosure will, when required, be a very simple one-time matter.

A letter fromPaul R. Dixon, chairman of the Federal Trade Commission, to Sen. Charles E. Goodell (R., N.Y.), clarifies the effect of the regulation on the medical profession:

"The Truth in Lending Act does not come into play in a situation in which the patient decides on his own to pay his bill in installments. However, when a physician comes to a specific agreement with a patient to pay the physician's fee in more than four installments, then [the regulation] requires written disclosure of all applicable points of information at the time of the agreement. This will . . . be a very simple matter. . . ."

"The following brief disclosure would satisfy the Truth in Lending Act:"

sample document

Cash Price (Medical Fee)	$500
Less: Cash Down Payment (Advance Payment)	100
Unpaid Balance	400
Amount Financed	400
FINANCE CHARGE	**NONE**
Total of Payments	400
Deferred Payment Price	500
ANNUAL PERCENTAGE RATE	**NONE**

Purchaser (Patient) hereby agrees to pay to Dr. John Doe at the address shown above the **"TOTAL OF PAYMENTS"** shown above in 10 monthly installments of $40.00, the first installment being payable ... . 19 , and all subsequent installments on the same day of each consecutive month until paid in full.

The two items **FINANCE CHARGE** and **ANNUAL PERCENTAGE RATE** must appear in bold-face type or otherwise conspicuously, AMA attorneys emphasize.

According to Dixon's directive, the "use of the above form could be effectuated by any physician's nurse in a few moments and **no other disclosure is required on subsequent billings.**

The above information, published in the American Medical News, is reproduced for the information of members of the Missouri State Medical Association.

Annual Session April 2-5, 1970 (continued)

my of Psychiatry, MSMA Committee on Industrial Health, Missouri Surgical Society, MSMA Committee on Medical Education and Hospitals, Missouri Heart Association, Missouri Chapter of the American Cancer Society, Missouri Chapter of the American College of Surgeons, the Missouri OB-GYN Society and the MSMA Committee on Medicine and Religion.

Featured speakers at the two Annual Session luncheons, on Friday, April 3 and Saturday, April 4 have been named. Friday speaker will be Mr. Ewing M. Kauffman, Kansas City, head of Marion Laboratories and owner of the Kansas City Royals baseball team of the American League. The Saturday luncheon speaker will be Missouri Lieutenant Governor William Morris of Kansas City.

House To Meet

The 1970 Annual Session opens on Thursday afternoon, April 2 with a meeting of the MSMA House of Delegates. Other sessions of the House are scheduled on Friday afternoon and Sunday morning.

Scientific sessions open Friday morning and continue all that day and all day on Saturday.

Sessions on a wide variety of subjects have been scheduled for the scientific portion of the annual meeting and a number of outstanding speakers will be on the program.

Mark the dates on your 1970 calendar — "April 2-5, Kansas City."

Special Feature

History of Ophthalmology in St. Louis

Part 1

BENNETT Y. ALVIS, M.D., *St. Louis*

In considering the factors that have made St. Louis the important ophthalmological center that it is and has been for many years, one must take into account the (1) organizations, (2) special events that have shaped its development and (3) the men whose character and ability as ophthalmologists and teachers brought this about.

There were 68 individuals—16 key figures—who make up this image. We shall consider first the organizations and significant events and, then, those individuals whose force of character and brilliance of mind initiated this development and promoted it.

Schools and Organizations

Following are the medical colleges that are a part of the history of ophthalmology in St. Louis:

1. Barnes Medical College (Later changed to National College of Arts and Sciences.)
2. Physicians and Surgeons (P & S)
3. Beaumont
4. Marion-Sims } United to form
5. St. Louis University College of Medicine
6. Missouri Medical
7. St. Louis Medical } United to form
8. Washington University School of Medicine

National Societies

Three national societies figured in the history of ophthalmology in St. Louis.

American Board of Ophthalmology

This Board was established in 1920 to give eye specialists a chance to demonstrate their knowledge and ability by submitting to voluntary examination. This has been a prime factor in raising the level of ophthalmology in St. Louis and all America.

American Academy of Ophthalmology and Otolaryngology

This society was open to all certified ophthalmologists by the above Board and has afforded its members the means of keeping abreast of the constant advances in ophthalmic knowledge.

American Ophthalmological Society

Established in 1864, this Society exerted great influence upon St. Louis ophthalmology and vice versa. It contributed much to the high standards of medical ethics and scientific achievement to all of medicine in the United States and to St. Louis medicine, in particular.

St. Louis Societies

St. Louis Ophthalmological Society

This Society was founded mostly by 12 ophthalmologists to train men for the American Ophthalmological Society. It was an exclusive

---

This comprehensive history was written by a contemporary of all but two of the leading ophthalmologists who were influential in the development of St. Louis as an ophthalmological center. Dr. Alvis received his M.D. degree at St. Louis University in 1918 and became a certified ophthalmologist in 1924. He was a Research Fellow in neurological surgery at Barnes Hospital and Washington University from 1918 to 1920. He is Assistant Ophthalmologist Emeritus at Barnes Hospital, St. Louis Children's Hospital and St. Louis Maternity Hospital, Ophthalmologist at The Jewish Hospital and St. Louis City Hospital and Associate Professor Emeritus in Clinical Ophthalmology at Washington University. He is a member of numerous ophthalmological and medical societies. At the age of 85, he is in the private practice of ophthalmology with his son, Dr. Edmund B. Alvis, and Dr. Jack Kayes.

club made up of outstanding Washington University physicians, namely:

John Green, Sr.	John T. Shoemaker
Adolph Alt	Charles W. Tooker
Martin Haywood Post, Sr.	Leslie C. Drews
Frank Henderson	Lawrence T. Post
Joseph W. Charles	M. H. Post, Jr.
William A. Schoemaker	Fred E. Woodruff

Each man, in his turn, was required to present a paper at a meeting each month.

St. Louis Ophthalmic Study Club

This club was formed by prominent physicians who were not members of the St. Louis Ophthalmological Society. They were William H. Luedde, John Green, Jr., Meyer Wiener and six members of the older society. Later, all ophthalmologists who had passed the American Board examination were admitted and the two societies amalgamated as the *St. Louis Ophthalmological Society*

Ophthalmic Division of the St. Louis Medical Society

Before the bars of the above-named, exclusive societies were removed, this flourishing society existed. This group of ophthalmologists met about once a month and invited all members of the Medical Society interested in ophthalmology to join. The meetings were well attended and papers were presented by prominent invited guest speakers, as well as by the members. When the two exclusive groups opened their membership, this organization soon ceased to exist.

NOTABLE EVENTS

The first and most important event to influence St. Louis ophthalmology was a 30-day course in ophthalmic histo-pathology by "Herr Doctor," Professor Ernest Fuchs in 1921. This was one of several courses organized in the cities of the United States primarily to help recoup the finances of Professor Fuchs, who had lost his possessions in Vienna in World War I. A fee of $100 was paid by each of about 50 who took the course. All were eager to hear the world's foremost teacher of ophthalmology and author, whose textbook was the "Bible" for students and practitioners of ophthalmology then and for years to come.

The second event of influence was the course in slit lamp microscopy by Professor Koeppe, who devised the Koeppe Slit Lamp, a fine, but rather difficult, instrument. This course also was well attended, although only two or three of the group possessed slit lamps or could use them. Drs. Luedde and Post each had one.

The third notable course of instruction was offered by Anton Elschnig, M.D., Professor and Head of the Eye Department and Clinic at the University of Prague. A remarkable surgeon who demonstrated a steady and dexterous hand at the age of 78, his lectures, procedures and demonstrations added much to our operative knowledge. Some of his procedures are still in use. Another event worth mentioning was a demonstration by Col. Henry Smith of India, who operated on 40 patients in one day at Missouri Baptist Hospital, removing cataracts by the "Smith Method," which was a wide corneal incision, full iridectomy and delivery by pressure on the cornea with modified Strabismus hook. The lenses came out in the capsule quite often with a sizeable quantity of vitreous. The end results were poor.

THE MEN

Following are the names of 17 ophthalmologists who were prominent in the development of St. Louis as an important ophthalmological center:

John Green, Sr., M.D. (1835-1914, age 78)
Martin Hayward Post, M.D. (1851-1915, age 64)
Arthur E. Ewing, M.D. (1855-1929, age 74)
Joseph W. Charles, M.D. (1868-1950, age 82)
John Green, Jr., M.D. (1873-1949, age 76)
William H. Luedde, M.D. (1876-1952, age 76)
William Ewing Shahan, M.D. (1877-1958, age 80)
Lawrence Tyler Post, M.D. (1887-1958, age 71)
M. Hayward Post, Jr., M.D.
John F. Hardesty, M.D.
Leslie C. Drews, M.D. (1905-1961, age 55)
F. O. Schwartz, M.D.
(*others of Green's disciples*)
George F. Paine, M.D. (Post, Sr.)
Dorcas Meadows, M.D. (Ewing)
Amalie Napter, M.D. (Ewing)
John Flury, M.D.
Carl Beisbarth, M.D. (J. Green, Jr.)

One man may be considered the founder of St. Louis ophthalmology in that the group of associates and followers he gathered about him have dominated the field of eye medicine here from his advent until the beginning of the present new era of great clinical and research achievement. He is John Green, Sr.

John Green, Sr., M.D. (1835-1914)

Dr. Green finished the medical course at Harvard University School of Medicine in 1860 and refused to accept the degree until 1866, having considered the course unworthy. After two trips to Europe and service in the Union Army, he came to St. Louis in about 1864 to practice ophthalmology and otolaryngology. He was the first to so specialize in St. Louis. He studied with Donders and became interested in the detection and measurement of astigmatism.

Dr. Green was admitted to the American Ophthalmological Society in 1866 and attended 36 consecutive meetings and presented 36 papers, seven during one year, 1880. They were long papers that were packed with intricate optical formulas, evidence of great mathematical talent. He was appointed to the Membership Committee and served from 1868 to 1904 (36 years) with 23 years as chairman. He truly ran the Society with "strict adherence to the highest standards of ethical conduct." These high standards of ethical conduct are characteristic of the AOS to this day.

A benign autocrat, he antagonized some of the members. In 1904, a proposal to establish a new membership committee rule offended him and he resigned from the Society and never attended another meeting. He was elected vice-president, but refused the presidency. He was then elected honorary president.

Green was affiliated with Washington University's Eye Department from 1871 until his death in 1914 (43 years). He was made professor in 1886 and lecturer in 1899.

There is ample evidence of his eccentricity and violent temper which often led to sharp, even abusive remarks to patients and colleagues who failed in accuracy of response. In spite of his eccentric and violent nature, he founded an ophthalmological dynasty which has dominated the field of ophthalmology in St. Louis, and which continues to this day and lists some 20 of the leading figures in this specialty in this city.

Martin Hayward Post, M.D. (1851-1915)

Dr. Post was assistant to Dr. Green for three years. Having studied in Europe under Donders and Snellen in Utrecht and Nettleship in London, he then continued his association with Dr. Green.

His ability brought many of the leading citizens of St. Louis into his care. Among these was the millionaire, McMillan, whose fortune endowed this hospital with the stipulation that Post's eldest son be the first head of the eye department.

Post was responsible for the Missouri law requiring prophylaxis against ophthalmia of the newborn. He was invited to join the American Ophthalmological Society in 1887 and was a member for 26 years. He was elected president in 1914, but died before installation in 1915.

John Green, Sr., M.D. (1835-1914)

Arthur E. Ewing, M.D. (1855-1929)

Dr. Ewing was graduated from St. Louis Medical College in 1883 and became associated with Drs. Green and Post, Sr. He had ophthalmological training in the University of Kiel.

He was a pioneer in ophthalmic histology, mounting and studying specimens in his own laboratory throughout life. He was an ingenious and competent surgeon and devised numerous surgical instruments and surgical techniques, including Ewing's operation for entropian, among others.

Dr. Ewing became Clinical Professor of Ophthalmology at St. Louis Medical College and then at Washington University Medical College. He was named emeritus professor in 1921.

Dr. Ewing was a member of all the national and local medical societies of ophthalmological interest, including the AOS in 1914.

Joseph W. Charles (1882-1959)

Dr. Charles was an assistant to M. H. Post, Sr., for three years. He then studied in Europe for two years under leading teachers: with Fleming and Heller in Kiel, with Virchow and Koch in Berlin and with Javal and Tsherning in Sorbonne, France. Returning to private practice, he was affiliated with Washington University until 1921 when he became Associate Professor of Ophthalmology at St. Louis University for some years.

During World War I, he abstracted leading articles on head surgery from French journals at the front.

Dr. Charles was a member of the AOS in 1904 and of other leading local and national eye societies. He was an outstanding figure in St. Louis ophthalmological circles for many years.

John Green, Jr. (1873-1949)

John Green was graduated from Harvard in 1884 and received his M.D. degree from Washington University in 1898. He was an apprentice to Drs. Green, Post and Ewing for three years. He remained as a member of this firm for a few years and then withdrew because of friction of two temperamental personalities. He joined William F. Hardy, with whom he practiced for many years. Later each practiced independently.

Dr. Green became Professor of Ophthalmology at St. Louis University. He also became a national figure. He was Chairman of the Section of Ophthalmology of the AMA in 1935 and was a member of the American Board of Ophthalmology for 15 years. He was secretary of the AOS in 1946 and served on the council and theses committee. He became president of the AOS in 1944.

Dr. Green was in practice for 51 years. He had many other civic and educational interests.

William Henry Luedde (1876-1952)

William Luedde received his M.D. degree from Washington University in 1900. He then interned at St. Louis City Hospital from 1900 to 1901. He was assistant to Dr. M. H. Post, Sr. from 1901 to 1904. He was abroad for two years at Kiel in Germany. In 1906 he was at the Sorbonne with Tscherning and spent several months with Worth in London.

Dr. Luedde became an ardent advocate of the occlusion treatment of amblyopia.

After six years of preceptorship and study abroad, he rejoined Dr. Green, Sr. as assistant. Dr. Green was a man whom he loved and respected in spite of his eccentricities.

It was from Donders and Tscherning that he acquired the basis for his theory of accommodation and he acquired from Worth his other hobby—constant occlusion treatment of amblyopia.

He was on the staff of the Washington University Eye Department from 1905 to 1912. He was professor and director of the department at St. Louis University from 1921 to 1950. He was also director of the St. Louis Society for the Prevention of Blindness and was awarded the Leslie Dana Medal for Prevention of Blindness.

Dr. Luedde wrote many scientific articles on many subjects. He owned one of the first slit lamps in the United States in 1906 and a Gullstrand ophthalmoscope in 1914. Many of his early papers concerned the use of these instruments.

He was a member of the AOS and other American societies and the Societe Francaise D'Ophthalmologie. He was a member of the board of regents of the American College of Surgeons. He led a long fight for the highest medical ethics and against rebating.

Dr. Luedde was a fine clinician, a great teacher and humanitarian.

William Ewing Shahan (1877-1958)

Dr. Shahan became a member of the AOS in 1918, having obtained his A.B. and M.D. degrees from Washington University in 1904. He received an M.A. in physiologic optics in 1912, his thesis being "Equivalent Values in Spectacle Lenses." It was a mathematical masterpiece *(JAMA, 1912).*

Dr. Shahan was assistant to Dr. M. H. Post, Sr. from 1904 to 1908 and then spent one year in Europe. He was associated with Drs. Green, Post and Ewing.

He was head of the eye department of Washington University from 1927 to 1929, but was not happy with his administrative duties and was succeeded by Dr. Harvey Howard.

Dr. Shahan was a most ingenious thinker, mathematician and master mechanic. His "pet" was the turning lathe in his office. He devised and constructed many instruments, most notable of which was the "Shahan Thermophore," which he constructed and calibrated and proved experimentally on animal eyes and, later, clinically.

A friendly and delightful person to know, Dr. Shahan was a man of unfailing equanimity and gentleness.

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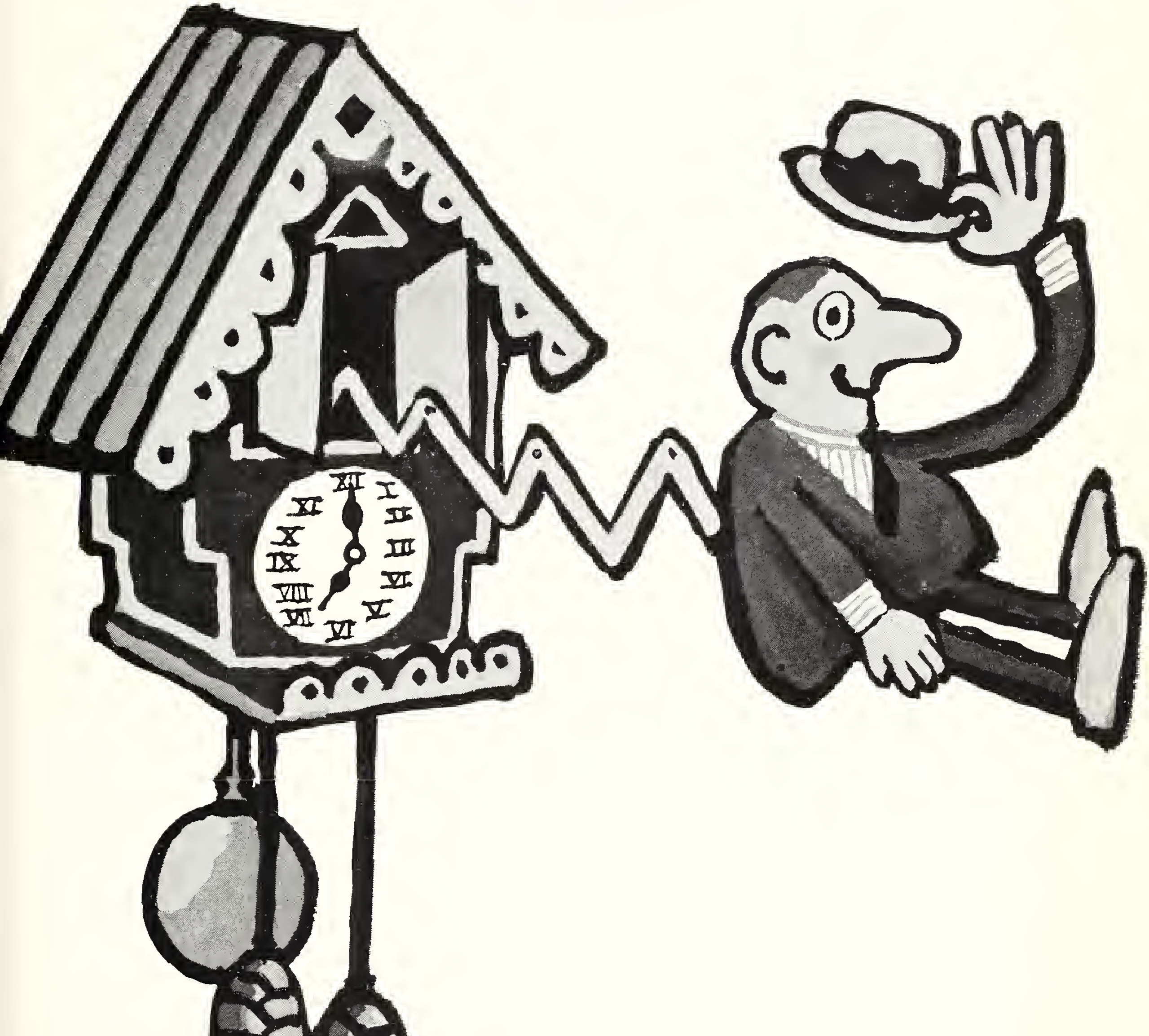

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The Council Reports

Meeting of Sept. 6-7 1969

The MSMA Council met at the Robidoux Hotel in St. Joseph on Sept. 6-7, 1969 with Chairman Gerald L. Miller, M.D., Kansas City, presiding. Those in attendance were Drs. Miller; Doyle C. McCraw, Bolivar; Joseph L. Fisher, St. Joseph; Max S. Franklin, St. Louis; John I. Matthews, Jefferson City; David N. Kerr, St. Louis; John N. Martin, St. Joseph; Lysle M. Bach, Hannibal; Walter T. Gunn, St. Louis; James C. Cope, Columbia; William D. Bradshaw, Clinton; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; Eugene T. Hansbrough, Poplar Bluff; E. D. Imes, Maryville; William C. Allen, William D. Mayer, Columbia; J. Loren Washburn, Versailles; Hector W. Benoit, Jr., Kansas City; Arthur W. Neilson, St. Louis; Stanley S. Peterson, Daniel L. Yancey, Springfield; Byron M. Stuart, Boonville; Messrs. John W. Noble, Kennett; Tim Norbeck, St. Louis, AMA Field Representative; Hollister Smith, St. Louis; Gary L. Schnedler, Springfield; Allen D. Smith, Kansas City; Edward M. Hirsch, St. Joseph; Robert Carroll, Royal O. Cooper, and Ray McIntyre, Staff, Jefferson City.

The Chairman opened the meeting and requested approval of the Council minutes of June 14-15, 1969. On motion of Dr. Fisher, duly seconded, the minutes were approved as printed.

Dr. Franklin reviewed the financial report which was submitted as of Aug. 31, 1969, copies of which were distributed to the Council and Officers. It was pointed out that due to the Curteman Case, there will be additional legal fees and expenses this year. After discussion, on motion of Dr. Bradshaw, duly seconded, the financial report was approved.

MSMA Legal Counsel gave a brief report on the Curteman Case indicating that the court's decision in the case is expected within the next 60 to 90 days.

REPORT OF THE EXECUTIVE SECRETARY

Mr. McIntyre reported that Dr. Kerr had been appointed Chairman of the State Medical Advisory Committee to Selective Service. He will replace Dr. William Shaw who resigned because of illness.

He also reported that $100 has been given by MSMA to the Student American Medical Association (SAMA) for a sustaining membership for 1969.

The Executive Secretary said that members of the Kansas City Blue Shield staff visited the MSMA office in July to learn more about the activities of MSMA, committee structure and functions and relationships of county medical societies with the State Association.

He reported that Dr. Lucas of the University of Missouri Medical School had contacted the Laboratory Committee of the State Medical Association requesting their approval for a pilot laboratory testing program in rural Missouri. The Laboratory Committee has not met to consider this request. The Committee desires to have Dr. Lucas meet with them and to fully explain the pilot program before making a recommendation to the Council.

Mr. McIntyre announced a number of AMA meetings which are scheduled, as follows: Regional Conference on Voluntary Health Agencies scheduled for October 12 in Indianapolis; the AMA Council on Medical Service is holding a regional meeting on Peer Review in Chicago on October 5; the Judicial Council of the AMA is holding a regional meeting on October 5, in Chicago; AMA Committee on Quackery is sponsoring a Regional Conference on Health Quackery on October 23 in Chicago. Plans are to have official member representatives of MSMA plus staff personnel attend all of these sessions.

Mr. McIntyre called attention to the Annual Meeting of the Missouri Health Council to be held in Jefferson City on September 23.

He announced that a Special Session of the Legislature has been called for September 8 to consider increasing certain state taxes to finance various state programs and operations.

Mr. McIntyre reported that at the direction of the Council, prior to August 4, a substantial list of names of MSMA members was sent to Dr. Howard of the AMA for consideration for appointment to various AMA Councils and Committees.

Mr. McIntyre reported he had investigated possible new locations for the 1971 Annual Session in St. Louis, as per instructions from the Council. In view of the facilities needed in order to accommodate the Woman's Auxiliary, the Medical Technologists and various other organizations who meet in conjunction with the State Association and improved arrangements with the Chase Hotel for the MSMA 1971 meeting, on motion of Dr. Gunn, duly seconded, it was agreed to hold the 1971 MSMA Annual Meeting at the Chase Hotel, April 15-18.

The Executive Secretary reported that the AMA Council on Occupational Health is meeting in St. Louis on September 15-16. He stated that Dr. Richard Sutter of St. Louis County is a member of that Council.

Dr. Miller reported that Dr. William Bradshaw of Clinton, Councilor of the 6th District, had been appointed to the State Board of Health by Governor Hearnes and confirmed by the Missouri Senate.

REPORT OF THE PRESIDENT

Dr. McCraw reported that at the AMA meeting in New York, the Missouri Delegation held a reception for Dr. and Mrs. James Whittico, a member of the Missouri State Medical Association and then President of the National Medical Association. He read a letter from Dr. Whittico expressing thanks and appreciation to the MSMA for this occasion.

Dr. McCraw also reported that he had received a letter from Dr. H. V. Guhleman of Jefferson City complimenting the staff and those physicians who assisted the staff in the Association's activities during the regular 1969 session of the Missouri Legislature.

Dr. McCraw also mentioned that he had received a letter from Dr. Clayton of Missouri University Medical Center requesting approval of MSMA for a project entitled "Drug Information Central" at the University of Missouri Medical Center. Dr. McCraw stated that the Missouri Regional Medical Program would fund this project. After discussion, it was moved, seconded and passed that the project be approved.

Dr. McCraw said that the Missouri Academy of General Practice was resubmitting an application to the Missouri Regional Medical Program for approval of the Cervical Cancer Detection Program. Dr. William C. Allen reported the program was submitted to Washington and was turned down because of lack of information. It was suggested that the program be rewritten, giving more emphasis on the aspects which will involve the medical association, and that calls on physicians be made to explain the format of the program to see if they would be willing to participate. After discussion, on motion, duly seconded, it was agreed that approval be given to resubmit the application again.

Dr. McCraw called attention to an editorial written by Dr. Danforth of Washington University Medical School, which appeared in the September 11 issue of *JAMA* regarding the possibility of medical schools working together on a regional basis, with some of the schools stressing the training of doctors to go into practice and others emphasizing research.

He aslo presented a letter from the Student AMA asking support for the restoration by Congress of the Federal Health Professions Student Loan Program budgetary cutbacks. It was decided to take no action on this matter at this time.

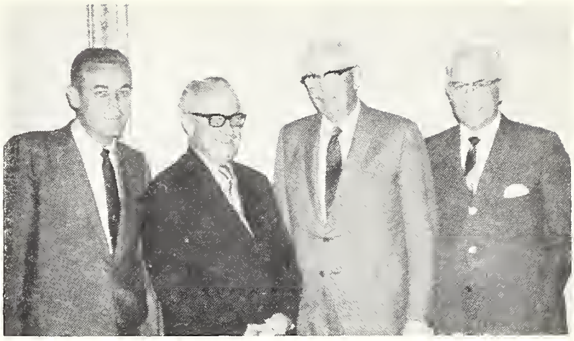
Dr. McCraw reported on a letter received from the Michigan State Medical Society regarding a Task Force meeting to discuss the rising cost of Medicaid; peer review, etc. He also reported on a few physicians' charges under Medicaid, showing copies from the Welfare Department, indicating some problems of the Welfare Department in the Medicaid program. He stated that copies of these charges have been sent to the various specialty review groups for clarification and review.

After considerable discussion of this particular subject, it was decided that the issue of peer review be tabled until Sunday at which time the matter would be brought up for more extensive discussion.

REPORT OF THE FIELD SECRETARY

Mr. Royal Cooper explained that sometime ago it was reported that a few county societies had been approached by members of the Student Health Organization requesting permission to assist with the health needs of the communities. He reported that the Boone County Medical Society spent approximately three years studying medical needs and ways in which students could be of service in operating evening clinics. Not only medical students, but students of social work and nursing could be utilized. The main obstacle in the plan was the fact that once the clinics are developed, continuity must be guaranteed with or without student assistance. The St. Louis County resolution adopted at the last Annual Session recommended that all county societies and MSMA maintain active liaison with medical schools and students to assist in bringing tomorrow's physicians into the mainstream of medicine.

At the last Council meeting, the staff was instructed to contact the various medical schools and to obtain the names and addresses of students registered from Missouri. The MSMA staff contacted 29 medical schools and received replies from 16 of the schools. A copy of the resolution, along with a letter and a list of the students from their areas, were sent to the Presidents of the County Medical Societies. Thirty-nine County Societies have received such lists. There is a total of 490 Missouri residents in medical schools.



(*Left to right*) Drs. John N. Martin, Councilor for the First District; Gerald L. Miller, Chairman of the Council; Doyle C. McCraw, MSMA President; and Joseph L. Fisher, President-Elect, enjoy a visit prior to the opening of the Council meeting.

It was reported that several county societies have planned meetings with medical students. The St. Louis Medical Society has planned a meeting on September 14 for medical students from St. Louis University, and they plan another meeting for Washington University medical students in the near future. Also, Cole County Medical Society plans to have a meeting with medical students in September.

Mr. Cooper called attention to the President's Page in the September, 1969 issue of Missouri Medicine in which Dr. McCraw pointed out the need for every physician to make an attempt to meet these young future physicians and encourage them to obtain their degrees and to locate in Missouri.

After further discussion, it was moved by Dr. Fisher, seconded and approved that the President appoint an Ad Hoc Committee of persons involved in medical education to study MSMA liaison with medical students and request the Committee to recommend a course of action for MSMA and report back to the Council.

COUNTY MEDICAL SOCIETY OFFICER'S CONFERENCE

Dr. Gunn, Chairman of the Public Service Committee, reported that the Annual County Medical Society Officer's Conference is scheduled for Saturday afternoon and evening, January 31 and Sunday morning, Feb. 1, 1970 at the Ramada Inn, Jefferson City. He stated that the program will follow the same format as that of former years, beginning at 1:45 PM on Saturday, January 31, with a speaker from the AMA, and a program on Comprehensive Health Planning and, also, a program on Legislation. There will be a dinner on Saturday night with U. S. Senator Thomas F. Eagleton as the featured speaker. The program will resume on Sunday morning at approximately 8:30 AM and will include discussion groups with county society officers. Details of the program will be furnished later when the program is finalized.

It was noted that this conference will be held in conjunction with the Council meeting on Friday, Jan. 30, 1970 and Saturday morning, January 31.

COUNCILOR DISTRICT REPORTS

Dr. Gunn reported that the *St. Louis Post-Dispatch* recently devoted an entire section to advertising the St. Louis Medical Society's Medical Museum. He also stated that the Society's President and Committee on Environmental Health are working on the air pollution problem in St. Louis. He also reported on the get-acquainted party for St. Louis University medical students and their wives, and on tentative plans for a similar party for Washington University medical students in the near future to be sponsored by the St. Louis Medical Society.

Dr. Bradshaw reported that West Central County Medical Society had a very good meeting at Nevada which included athletic coaches and directors and physicians. He stated that between 90 and 100 people were in attendance. He stated also that plans were to hold a Sixth Councilor District meeting some time later this year.

Dr. Miller reported that the Seventh District had a relatively quiet summer. He stated that they had participated in the organization of the Mid-America Comprehensive Health Planning Agency and, also, in securing private funds for the continued development and planning of the Kansas City Medical School, which is supported by MSMA.

Dr. McAlhany of the Eighth District reported on the Athletic Injuries Conference held in Springfield recently with 130 coaches present. He also reported that Greene County Medical Society has a standing committee which meets monthly with the city government and the city health officials to review health problems and work with local OEO officials to guide and help supervise some of their local health planning.

Dr. Hansbrough, Tenth District, reported on a regional meeting to be held on October 19 in Cape Girardeau, which is the annual meeting of the Southeast Missouri Cancer Conference. He stated that the program will be presented by ten local area physicians who will present papers on Sunday afternoon, with a discussion of these papers to follow dinner. He indicated this meeting will attract approximately 200 physicians from Illinois, Arkansas, Tennessee and Missouri. It is sponsored by the Missouri Chapter of the American College of Surgeons and the Missouri Chapter, American Cancer Society.

BUDGET COMMITTEE APPOINTED

The following members of the Council were appointed to the Budget Committee for 1970 by Dr. Miller: Drs. Max S. Franklin, Chairman; Joseph L. Fisher; Walter T. Gunn; Doyle C. McCraw; E. A. Stricker; and Gerald L. Miller.

It was announced that the Budget Committee will meet on Friday afternoon, December 12, at 2:00 PM, the day prior to the regular Council meeting on Dec. 13-14, 1969 at the new Holiday Inn Downtown, Jefferson City.

ANNUAL SESSION COMMITTEE ON ARRANGEMENTS

The following members were appointed to the General Committee on Arrangements for the 1970 Annual Session in Kansas City, April 2-5: Drs. Gerald L. Miller, Chairman; William D. Bradshaw, Clinton; and John N. Martin, St. Joseph.

REPORT OF COMMITTEE ON LEGISLATIVE MATTERS

Dr. Matthews, Chairman of the Legislative Matters Committee, presented a brief run-down on legislative activities during the past General Assembly and reviewed a *Legislative Bulletin* which had been prepared and distributed to each Councilor for study. Dr. Matthews urged the Councilors to take a personal interest in legislative matters. He urged other members of their Districts to do the same since health legislation is becoming more important each year. He predicted that we will have to extend our activities more and more for each session.

Dr. John I. Matthews
Chairman, Committee on Legislative Matters

He stated that the *Legislative Bulletin*, which is a resumé of the actions of the legislature in this past session, is important enough, in his opinion, to be sent to each and every member of the Association in a special mailing. He said that he feels it is becoming increasingly important that physicians recognize that the number of bills on health care is increasing more and more each session.

After discussion, on motion of Dr. Kerr, duly seconded, it was agreed that the *Legislative Bulletin* be circulated to the individual members of the Association by special mailing.

It also was suggested that the President's Page in Missouri Medicine call attention to this bulletin and point out how important it is for every member of MSMA to become acquainted with his representative and keep the line of communication open.

Dr. Matthews also referred to two proposals from the House of Delegates regarding developing legislation for the next session of the Legislature and stated that the Committee plans to study these items.

AD HOC COMMITTEE TO STUDY A NEW LEVEL OF PRACTITIONER

Dr. Imes presented the report of the "Ad Hoc Committee to Study a New Level of Medical Practitioner" in the absence of the Chairman, Dr. Edwards. He stated that three meetings had been held by the Committee and, after general discussion on all aspects of this subject, the Committee reached the following conclusions:

1. A need does exist for a new type of medical assistant.
2. A role definition must be established in general terms.
3. Schools of higher education with medical facilities exist which are potentially capable of providing the training necessary.
4. Sources of Candidates are: nurses, former military corpsmen, technicians, physical therapists and other qualified, interested persons and high school students interested in the health field.
5. The Committee felt that since the activities of the physicians assistant would be under the direct supervision of licensed physicians and not as an independent practitioner, licensure is not desirable or necessary. Certification would allow some measure of contact and knowledge of their location and movement from one area to another. Certification is the recommended technique of promoting the training qualifications and certification procedures with re-

quirements initially approved by MSMA and other groups. The Committee felt that organized medicine should maintain some control over the certification and training programs.

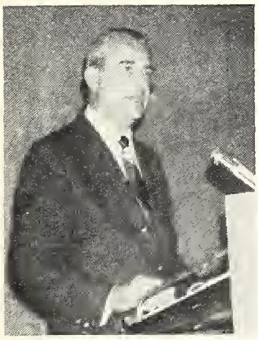
The Committee recommended that the Council, through other committees of MSMA, expedite the further study of this program.

During discussion of this report, it was pointed out that the University of Missouri already has begun setting up an allied health training program under the direction of Dr. Jack Colwill, who also is a member of the above Ad Hoc Committee.

After further discussion, on motion of Dr. Cope, duly seconded, the report was accepted and was referred by the Chairman of the Council to the Interspecialty Committee for further study, with a directive to report back to the Council.

REPORT OF AMA ANNUAL CONVENTION

Dr. Benoit, AMA Delegate, was requested to give a resumé of actions taken by the AMA House of Delegates at the Annual Convention held in New York City on July 13-17, 1969. His report follows:



**Dr. Hector W. Benoit, Jr.
Delegate to the AMA**

The Council on Constitution and Bylaws recommended an amendment to the Bylaws to provide that the Sturgis Parliamentary Procedure be adopted instead of Robert's Rules of Order in governing the conduct of the House. Adopted.

The Council on Constitution and Bylaws presented a bylaw amendment to permit qualified Doctors of Osteopathy to become active members in the AMA. After House amendment, the Bylaw change was adopted.

Resolution # 94 proposed to increase the Board of Trustees from 15 to 17 members by adding the Vice-President and the Speaker of the House as additional voting members of the Board. This was not adopted.

A report by the Board of Trustees regarding health care costs was made in response to Resolution # 39 at the 1968 Clinical Meeting, which requested that they develop and expand programs to analyze, define and disseminate information concerning the costs of health care. The report outlined the activities of the AMA and of other organizations pertinent to the objectives of this resolution and called for continued support of these activities and the full participation of physicians. This report was adopted.

A report of the Board of Trustees informed the House regarding actions taken by the Board concerning Medicaid prior to the adoption of the July 1, 1969 Medicaid regulations and cited several action programs being instituted by state and county medical societies, such as expanded peer review programs, eradication by the medical profession of the isolated abuses by physicians, etc. The report was adopted.

Another report of the Board of Trustees discussed investigations of the cost of Medicare and Medicaid being conducted by the Senate Finance Committee. The report strongly urged that peer review be assigned to the highest priority by the state and county medical societies and that quick and decisive action be taken to discipline those physicians who are determined to abuse Medicaid and Medicare. This report was adopted.

The report of Council on Medical Service regarding AMA Support of Broad Voluntary Health Insurance Programs encouraging all types of health insurance carriers to promote the offering of expanded benefit programs was adopted and a copy is to be sent to state and county medical societies urging their support.

The report of the Council on Medical Service regarding "The Medical Profession and Peer Review" outlined the program designed to further stimulate the application of the peer review concept and urged the implementation of peer review mechanisms. This report was adopted and is to be distributed to all state and county medical societies.

Resolution # 37 supported the development of prepayment and health insurance programs based upon UCR fees, suggested that such terms be defined and agreed upon in advance by all parties involved and specified that resulting payments be accepted by physicians as proper compensation for the services rendered. The House concurred with the general purpose of Resolution # 37, but amended it and adopted the resolution as amended.

Ten resolutions were introduced opposing unilateral determination of acceptable ranges of fees, either in Medicare or Medicaid by HEW. The House considered a substitute resolution in lieu of these ten resolutions, resolving that the AMA urge a reassessment by Congress of its intent and priorities in relation to Title XIX. The substitute resolution was adopted.

Resolution # 61, Medicaid—asked that the House rescind that portion of Resolution # 12 of 1968 Clinical Meeting which reaffirmed Association support of Medicaid, thereby withdrawing its endorsement of the program. The resolution not adopted.

Eight resolutions referred to the establishment of a certifying board in the specialty of allergy. These resolutions were referred to the Council on Medical Education, requesting a progress report at the 1969 Clinical Convention.

A joint report of the Council on Medical Education and Board of Trustees called for an increase in financial support of medical schools by the federal government to permit a major increase in the enrollment of medical students and the production of physicians. The report was adopted.

A resolution dealing with the subject of awarding M.D. degrees to qualified osteopaths who may complete an approved curricula on the postgraduate level was referred to the Council on Medical Education.

A report of the Board of Trustees stated that several specialty boards have taken action to permit examination of osteopathic graduates for certification.

Report of the Board of Trustees on physician relicensure reviewed a study by the Council on Health Manpower on the subject of physician relicensure and continuing education. Both the Board and the Council recommended that a relicensure program not be considered at this time, but that methods of maintaining quality medical care through peer review evaluation and continuing education be extended and improved. The report of Board of Trustees approved.

(Continued on page 901)

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Composition: Each tablet contains potassium bicarbonate (2.5 Gm.), citric acid (2.1 Gm.), cyclamic acid, artificial flavor and color. **Contraindications:** When renal function is impaired, or if the patient has Addison's disease, potassium supplementation should not ordinarily be instituted. **Precautions:** Should not be used in patients with low urinary output unless under the supervision of a physician. In established hypokalemia, attention should be directed toward correction of frequently associated hypochloremic alkalosis and other potential electrolyte disturbances. Patients should be directed to dissolve tablet in stated amount of water to assure against gastrointestinal injury associated with the oral ingestion of concentrated potassium salt preparations. **Side Effects:** While nausea has been reported in an occasional patient, K-Lyte produces no serious side effects when given in recommended doses to patients with normal renal function and urinary output. Potassium intoxication causes listlessness, mental confusion, tingling of the extremities and other symptoms associated with a high concentration of potassium in the serum. **Administration and Dosage:** K-Lyte effervescent tablets must be dissolved in 3 to 4 ounces of water before taking. Adults: 1 tablet 2 to 4 times daily, depending on the requirements of the patient. Two tablets (50 mEq. of elemental potassium) supply the approximate normal adult daily requirement. **How Supplied:** Effervescent tablets — boxes of 30 (orange or lime).

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Notes of interest from Here .... and There

Melvin C. Kasten, M.D., Cape Girardeau, was elected president and **Harry S. Still**, D.O., Macon, was elected secretary of the Missouri State Board of Registration for the Healing Arts at the organization's meeting in September. Outgoing president, **William E. Powers**, M.D., formerly of St. Louis, resigned since he has moved from the state. At the meeting, the Board issued 42 licenses by reciprocity to practicing physicians moving to Missouri from other states, issued 190 temporary licenses for participation in approved hospital training programs and approved the names of ten professonal corporations for doctors to incorporate in the state, mostly in the St. Louis and Kansas City areas. Other members of the Board are **James T. Brown**, M.D., Springfield; **Lee E. Havidson**, D.D., Kansas City; **Shelby R. Hughes**, M.D., Clinton; and **R. Jerome Williams**, M.D., St. Louis.

Dr. Omer E. Hagebusch, director of Clinical Laboratories and Medical Director of the Laboratory for Experimental Biology, St. Louis, has been elected to a second three-year term on the Board of Governors of the College of American Pathologists. Dr. Hagebusch also is chairman of the College's Committees on Insurance and Constitution, Bylaws and Resolutions. He is the originator and editor of *PathCAPsules*, a series of 61 professional education pamphlets. Dr. Hagebusch has been in practice in St. Louis for more than 30 years.

Dr. Charles H. Nicolai, St. Louis, has been elected president of the Deaconess Hospital medical staff, succeeding **Dr. James P. Murphy.** Dr. Nicolai, urologist, will serve on the hospital's Board of Trustees.—**Dr. Robert V. Tompson,** who joined the surgical staff of Woodland Hospital and Clinic, on July 1, 1968, has been named chief surgeon, succeeding **Dr. Avery P. Rowlette,** who will locate in Florida for the practice of medicine. Dr. Rowlette joined the Woodland Hospital in 1946 as chief surgeon. Dr. Tompson, a native of Moberly, received his M.D. degree from Washington University in 1958.

Dr. David Mainz, a specialist in internal medicine, has established his practice in Fredericktown where he is temporarily receiving patients in the offices formerly occupied by **Dr. Marvin Grossman.** He plans to move his offices to the new Fredericktown clinic upon its completion. Dr. Grossman has retired from private practice and will serve as the in-house rehabilitation physician at the Madison Memorial Hospital.

Dr. John E. Wilson is now associated with **Dr. George J. Fuchs, Jr.** and **Dr. Trevor F. Watson** in Columbia for the practice of obstetrics and gynecology.—**Dr. Richard C. Carroll**, Crystal City, has joined the medical staff of Jefferson Memorial Hospital. **Dr. J. L. Mayfield**, chief of staff, announced that Dr. Carroll will serve as general practitioner. Dr. Carroll recently opened his office in Crystal City.

Dr. Ben Till, Dexter, was the guest speaker at a meeting of the Dexter Kiwanis Club recently. He discussed new advances in the field of medicine.—**Dr. Ralph Ferguson**, Joplin, was the featured speaker at a recent meeting of the Jasper County Medical Secretaries and Assistants Society in Joplin. His subject was "Virus and Cancer."

The grand opening of the new **Nevada Medical Clinic** was held in September. Essentially a self-contained medical unit, the Clinic will house four physicians initially. They are **Drs. James Pascoe, Harry V. Langeluttig, Jr., James Harms** and **John Torontow. Mr. Butch Musgrave** will be the clinic's laboratory technician.

Dr. Harold L. Gainey, Kansas City, was honored at a dinner recently for his work in training Negro physicians at General Hospital. The dinner was given by 27 physicians who completed a postgraduate training program in obstetrics and gynecology under Dr. Gainey. A plaque commemorating his efforts in initiating the program in 1946 was presented to Dr. Gainey, who retired from the General Hospital staff in June and now maintains a private practice. **Dr. S. U. Rodgers**, one of the first program graduates, was chairman of the dinner.

Dr. Robert J. King, Columbia, has been appointed to the consulting staff of Audrain Hospital with full privileges in urology.—**Dr. Orlando G. Meneses** has joined **Dr. D. B. Ecker** and his staff in Pacific on a part-time basis. He plans to begin his full-time practice there in the near future.

WASHINGTON

Health, Education and Welfare Secretary Robert Finch has asked a special Task Force on medicaid to examine and make recommendations on proposals for a sweeping national health program.

The Task Force, headed by Walter J. McNerney, president of the Blue Cross Association, is scheduled to issue a report about the first of the year.

After referring to a proposal for universal health insurance endorsed by many governors at the National Governors' Conference, Finch told McNerney in a letter:

"I would like specifically to request that the Task Force consider, along with its other deliberations on medicaid and related programs, what directions and initiatives you feel the HEW Department should pursue in this area."

According to McNerney, one phase of the study would include the extension of medicare to persons of all ages, roughly the national compulsory health plan backed by Walter Reuther of the United Auto Workers and his Committee of 100 for National Health Insurance.

McNerney, however, also said that all types of mass plans would be studied, including the health insurance tax credit proposal endorsed by the American Medical Association.

The rapidly rising costs of medicare and medicaid have brought the issue to the forefront. The Administration said older people who enter the hospital after January 1 will have to pay for an additional $8 of their hospital bills due to the higher costs. The increase is required by law.

The benefit cutback results from an adjustment of the portion of the hospital bill for which a medicare beneficiary is responsible if these costs have risen substantially.

"Am I late?"

* * *

After a two-year study, Sen. Abraham Ribicoff (D., Conn.), former HEW Secretary, said he's reached the conclusion the federal health effort "is a planless conglomeration of programs administered by more than a score of agencies and departments."

Federal health spending "instead of supporting programs to provide for the health of the people . . . is maintaining a cumbersome, disjointed bureaucracy that even key government officials have difficulty managing," he told the Senate.

"Instead of eliminating problems (they) may be adding to factors such as rising costs, limited access to care and the fragmented organization of health services."

"There are so many programs administered in such bureaucratic confusion that no one—not the HEW Department, not the Bureau of the Budget nor any private organization was able to tell the subcommittee even how many programs there are."

* * *

The American Medical Association told Congress drug dependent persons should be treated as patients rather than criminals.

In testimony before the Senate Juvenile Delinquency Subcommittee, Henry Brill, M.D., chairman of the AMA's Committee on Alcoholism and Drug Dependence, said physicians are concerned over legislation before the Subcommittee proposing harsher penalties for persons unlawfully possessing drugs for their personal use.

"Mere possession for personal use of depressant and stimulant drugs having a legitimate medical usage should not constitute an offense," Dr. Brill said. "The degree of social hazard and the reasons for having the drug should be taken into account."

"With respect to the entire section on offenses and penalties, we propose an amendment to direct courts to appoint a panel of medical experts in each case where a drug abuser is brought to trial on a charge of illegal possession and where, in the court's opinion, medical treatment maybe indicated. The panel would make a determination regarding whether the defendant has a medical problem associated with his abuse of drugs—a physical or psychological disability or drug dependence.

"If medical treatment is indicated, the panel would recommend to the court the type of treatment needed—that is, general-medical or psychiatric care; inpatient hospitalization or clinical treatment; group therapy; half-way house etc. If medical treatment is not indicated, or if measures in addition to medical treatment are needed, the court would then consider the nonmedical handling of the case."

Under the proposed AMA changes, the HEW Department, rather than the Justice Department, would control the official classification of drugs, and the research and public education programs in the field. Control provisions would focus on manufacturers and distributors, rather than on physicians.

"We recommend that, as a matter of public policy, Congress explicitly charge the HEW Department with the major responsibility for research on all aspects of drug abuse and dependence other than enforcement," said Dr. Brill.

The AMA supports provisions in the legislation "which would allow researchers to withhold names of subjects and to handle controlled drugs without prosecution, especially on state and local levels, has served to hamper needed research in the past."

* * *

The American Medical Association supported legislation to require foreign medical graduates trained in this country to spend two years of residence in their native land or land of previous residence before becoming eligible to apply for U. S. citizenship.

C. H. William Ruhe, M.D., director of the AMA's Division of Medical Education, said the measure would strengthen the Exchange Visitor Program. However, Dr. Ruhe suggested that the provision be strengthened to require that citizens of less-developed nations return to their home countries rather than their latest nation of residence. He cited the example of citizens of India who come to the United States from England.

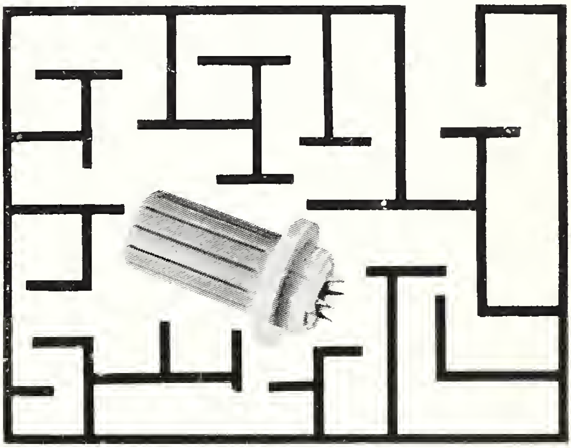
"If such participants are required merely to return to England there will be no alleviation of the brain drain from India." he told the House Judiciary Subcommittee on Immigration.

Notice!

First Examination by the American Board of Family Practice

The American Board of Family Practice announces that it will give its FIRST examination for certification in various centers throughout the United States. The examination will be held during a two-day period on Feb. 28-March 1, 1970. Information regarding the examination and eligibility for the examination can be obtained by writing:

Nicholas J. Pisacano, M.D., Secretary
American Board of Family Practice, Inc.
University of Kentucky Medical Center
Annex #2, Room 229
Lexington, Ky. 40506



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(When you consult
the Prescribing Information
you may agree
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dications: Tybatran (tybamate) has afforded sympto-c improvement in a variety of psychoneurotic disor-, especially in the treatment of the anxiety and tension ponents of psychoneuroses. Anxiety states manifested atically have responded to Tybatran (tybamate).

'batran (tybamate) has been useful in the control of tion in the aged and in the alleviation of some of the rse emotional accompaniments of senility.

'batran (tybamate) has been used with benefit in the ment of depressive symptoms associated with anxiety other symptoms of psychoneuroses. However, it is not :ated for primary treatment of depressive states. It is an antipsychotic agent, although it has been used as nctive therapy in some psychotic patients.

osage: One 350 mg. capsule, 3 times daily and two at ime is suggested as the adult starting dose. Adjust to individual requirements. Daily doses above 3000 mg. ıot recommended.

ontraindications: Known hypersensitivity to tybamate. e no studies have been done with this drug in human nancy, it should not be used in pregnancy unless the ntial benefit outweighs the risk.

arnings: Administer cautiously to patients receiving othiazines or other CNS depressants or having his- of convulsive seizures (See Adverse Reactions). Con- possibility of additive actions with alcohol or other hotropic agents, particularly phenothiazines or MAO bitors.

ecautions: Avoid abrupt withdrawal after prolonged although withdrawal symptoms have not been reported ıte. Exercise caution in addiction-prone individuals. If ptoms of hypersensitivity occur, discontinue at once initiate appropriate symptomatic treatment. Avoid ities requiring optimal mental alertness if drowsiness rtigo are present. As with any new drug, use cautiously tients with history of drug allergies, blood dyscrasias, hepatic or renal disease; periodic measurements of tic, hematopoietic and renal function should accom- prolonged and/or high doses.

lverse Reactions: Most frequent reactions, rarely re-ng discontinuation of tybamate, include drowsiness, ness, nausea, insomnia, and euphoria. There have been reports of skin rash, urticaria, and pruritus. Rare side ts include hyperactivity, fidgetiness, flushing, and tach-lia, suggesting excessive stimulation; also ataxia, un-liness, confusion, feeling of unreality, "panic reaction," ue, headache, paresthesias, vertigo, gastrointestinal rbances, glossitis, and dry mouth. Grand mal or petit seizures have been reported in a few hospitalized psy-c patients receiving tybamate (up to 6000 mg. daily) her with phenothiazines and other psychotropic ts, but not with tybamate alone. Consider the possibil-f rare, serious adverse reactions such as may occur the related drug, meprobamate. If excessive amounts ngested, gastric lavage and symptomatic therapy, in-ng central stimulants as necessary, are recommended. re prescribing, consult package circular.

pply: Tybatran (tybamate) is available in green, sealed ıles of three strengths: 350 mg., 250 mg., and 125 mg. strength is supplied in bottles of 100 and 500.

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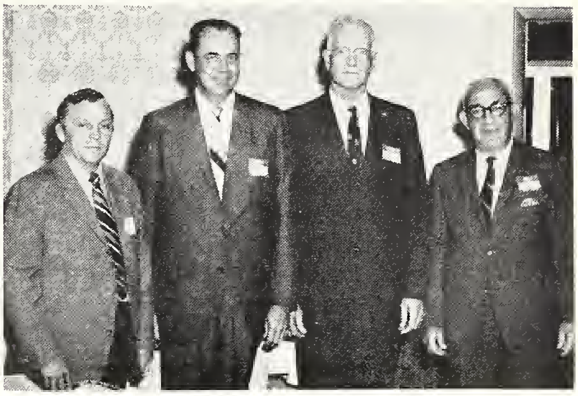
West Central Docs Host 60 Area Football Coaches



These staff members from the University of Missouri participated in the West Central Missouri Medical Society annual athletic injuries clinic for area high school coaches. *(Left to right)* Mr. Fred Wappel, trainer and instructor of intercollegiate athletics; Dr. William Allen, assistant medical director at the University; Dr. James M. Baker, football team physician; and Mr. Ed Dissinger, assistant to the director of athletics.

The importance of prevention and immediate treatment of athletic injuries were the topics for discussion at the annual athletic injuries clinic held recently in Nevada for area high school coaches by the West Central Missouri Medical Society.

The clinic provides valuable information for the local coaches who must deal with emergencies on the high school football fields. It also provides an opportunity for the Medical Society to be of service to the coaches in the Nevada area and the athletes whom they represent.

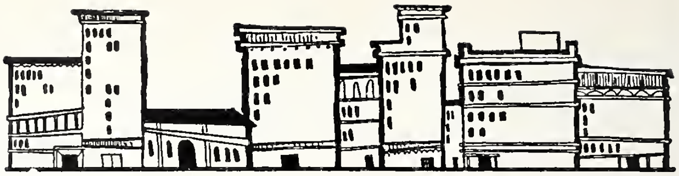
Guest speakers for the event were James N. Baker, M.D., team physician for the University of Missouri "Tigers" for 30 years; Mr. Fred Wappel, trainer and instructor in intercollegiate athletics for Missouri University; and Mr. Ed Dissinger, assistant to the director of athletics at M.U.

Dr. Baker showed the common sights of athletic injuries, using Nevada's high school quarterback, Jim Stafford, as a model. He discussed current methods of treatment from the standpoint of a physician.

Mr. Wappel discussed the prevention and immediate treatment of injuries as implemented by the trainer and coach. He demonstrated techniques used in immobilizing and icing injuries. He also discussed the prevention and treatment of heat exhaustion.

Mr. Dissinger gave a brief report on Missouri University's football team for this season.

From the Medical Schools



UNIVERSITY OF MISSOURI

Six medical projects affiliated with the University of Missouri-Columbia Medical Center will benefit from grants awarded in August. The awards—totalling more than $129,000—include funds for a diagnostic laboratory for mental retardation at Kansas City General Hospital, the birth defects center at the UMC Medical Center, a training program for nurses at the UMC School of Nursing, a UMMC-sponsored biochemical conference scheduled for this fall, and a special study of drug effectiveness at the Missouri Institute of Psychiatry in St. Louis.

The U. S. Public Health Service awarded three of the grants. The Vocational Rehabilitation Administration of the Department of Health, Education and Welfare; the National Foundation; and the Dow Chemical Company each made one grant.

The title of the grants, the principal investigator, the grant amount and the source of funding are as follows:

"Diagnostic Laboratory for Mental Retardation," under the direction of Dr. C. B. Francisco, assistant professor of neurology, Kansas City General Hospital, $8,958, Public Health Service.

"Birth Defects Center," under the direction of Dr. Robert L. Jackson, professor and chairman, department of pediatrics, $28,970, National Foundation.

"Professorial Nursing Traineeship Program," under the direction of Dr. Ruby Potter, associate dean of the School of Medicine in charge of the School of Nursing, $6,534, Public Health Service.

"West Central State Bio-Chemical Conference," under the direction of Dr. Thomas D. Luckey, professor of biochemistry, $1,800, Public Health Service.

"The GUIDE Elixir Study," under the direction of Dr. J. M. C. Holden, associate professor of psychiatry, Missouri Institute of Psychiatry, $13,000, Dow Chemical Company.

"Teaching Grant and Traineeships in Rehabilitation Medicine," under the direction of Dr. Lester E. Wolcott, professor and chairman, community health and medical practice, $70,456, Vocational Rehabilitation Administration, Department of Health, Education, and Welfare.

Dr. Philip C. Anderson, assistant dean of the School of Medicine, University of Missouri-Columbia, will be one of the speakers at the 80th annual meeting of the Association of American Medical Colleges on October 31-November 3 in Cincinnati.

More than 1,500 leading medical academicians from universities and hospitals in the United States, Canada and Europe are expected to attend the meeting which will feature as its theme, "The Health Care Dilemma—New Directions for Medical Education."

In his address, "Other Approaches to the Design of Undergraduate Medical Education," Dr. Anderson will discuss some of the obstacles to medical education and suggest remedies for today's problems. Among them is the problem of funding medical education.

Dr. David A. Garloff has been appointed director of the Medical Educational Services unit at the Medical Center, University of Missouri-Columbia. This unit includes medical audio-visual, illustration, photography and television services. It is a section of the recently formed educational resources group headed by Dr. Donald A. Senhauser, professor of pathology.

Dr. Garloff will hold a second appointment as assistant professor of education in the College of Education. He joined the University faculty on September 1.

Dr. Frank B. Engley, Jr., chairman of the department of microbiology at the School of Medicine, presented the second annual George Reddich Memorial Lecture at the University of Michigan School of Public Health Oct. 3.

Dr. George Reddich was for many years microbiologist for the Food and Drug Administration and later director of research for Lambert Pharmacal Co., St. Louis, as well as professor of microbiology at the St. Louis College of Pharmacy. He edited several books on disinfectants and sterilization.

In addition to teaching at the University, Dr. Engley is a consultant in microbiology to the

U. S. Public Health Service and has served on the advisory committee to NASA in the sterilization of spacecraft.

ST. LOUIS UNIVERSITY

Dr. Norman A. Rose has been named the first full-time director of the Section of Physical Medicine and Rehabilitation in the Department of Internal Medicine at the St. Louis University School of Medicine.

Dr. Norman A. Rose

Dr. Rose, who also holds the rank of associate professor of physical medicine and rehabilitation in internal medicine, comes to St. Louis University from the University of Colorado School of Medicine in Denver. He was director of training in the Department of Physical Medicine and Rehabilitation there.

He also directed training for the federally supported Regional Rehabilitation Research and Training Center at the University of Colorado School of Medicine, which includes a five-state area including Colorado, Montana, Idaho, Utah, and Wyoming.

An award of $107,430 through the Bi-State Regional Medical Program will fund a comprehensive diagnostic demonstration stroke unit to be headed by Dr. Kenneth R. Smith, Jr., associate professor of surgery and chairman of the section of neurosurgery, St. Louis University School of Medicine, who has been named project director.

The unit will emphasize the diagnosis and treatment of stroke and the training of physicians, nurses and technicians in the Bi-State Region. Participating hospitals will be the St. Louis University Hospitals, Cardinal Glennon Memorial Hospital for Children and John Cochran V.A. Hospital.

Principal investigators in the new unit, all St. Louis University medical faculty members and the area of their specialties, include Drs. Robert M. Woolsey, neurology; Edward Eyerman, Jr., neurology; Robert N. Donati, nuclear medicine; James M. Martin, radiology; Stephen F. Bowen, ophthalmology; and Melvin E. Meyer, ophthalmology.

Diagnostic and treatment facilities are at the St. Louis University Hospitals. Stroke unit office headquarters are on the fifth floor of the School of Medicine. Miss Mary Lou Aubel is program administrator.

A $130,640 grant has been awarded by U. S. Public Health Service to Dr. Denis Cavanagh, professor and chairman, department of gynecology and obstetrics. This will give continued support for a uterine cancer screening program at the St. Louis City Hospital, Homer G. Phillips Hospital, City Planning Agencies and Public Health Clinics. The award, administered by the Institute of Medical Education and Research at St. Louis City Hospital, is effective for a one-year period.

Dr. Virgil Bleisch, associate professor of pathology, Washington University, and director of laboratories at St. Louis City Hospital, and Dr. Manuel R. Comas, assistant professor of gynecology and obstetrics, St. Louis University, will be associated with Dr. Cavanagh in this project.

Free pap smear testing for the detection of cancer of the cervix with follow-up treatment for patients unable to pay will be provided.

Dr. Robert Dean Mattis, clinical professor and chairman of the department of ophthalmology, has received the gold medallion award presented by the Missouri Ophthalmology Society, Inc., for distinguished achievement in the interest of ophthalmology throughout the state of Missouri.

A member of the Society's first board of directors and a former president of the group, Dr. Mattis was honored for his contributions to the conservation of eye sight made through the Missouri State Medical Association. He initiated a program of sight screening for school children and assisted in making the eye testing program a requirement for persons seeking a driver's license.

Dr. Morton M. Weber, professor and chairman of the department of microbiology, St. Louis University School of Medicine, has been appointed to serve a four-year term on the Microbial Chemistry Study Section of the National Institutes of Health.

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Sex Education of Children and Youth

Currently, there is much discussion and debate about sex education of our young people and, particularly with respect to sex education in schools. Accordingly, it seems advisable at this time to review the American Medical Association's* position supporting sex education for children and youth.

In 1960 at the Annual Convention at Miami Beach, the House of Delegates of the American Medical Association adopted a general resolution on health education in schools and colleges. The resolution reaffirmed "the American Medical Association's long-standing and fundamental belief that health education should be an integral and basic part of school and college curriculums and that state and local medical societies be encouraged to work with the appropriate health and education officials and agencies in their communities to achieve this end." Sex education generally is considered as one aspect of health education.

In 1965 at the Annual Convention in New York City, the House of Delegates of the American Medical Association accepted a progress report of the AMA Committee on Maternal and Child Care on the problems of unwed parents. In this report, the Committee set forth its conviction that "the physician can contribute significantly to preventive aspects of illegitimacy by counseling young patients on sexual attitudes and behavior" and reiterated the position of the AMA's Joint Committee on Health Problems in Education with the National Education Association, regarding "the school's responsibility to supplement the home and other community agencies in teaching the facts about reproduction, the nature of the sexual drive and the values inherent in our family system."

Previously, in 1964, the Joint Committee on Health Problems in Education had adopted a resolution delineating this concept and urging schools to ". . . accept appropriate responsibility for reinforcing the efforts of parents to transmit knowledge about the values inherent in our family system, and about the psychic, moral and physical consequences of sexual behavior . . . that this be done by including in the general and health education curriculum the physiology and biology of human reproduction beginning at the elementary level and continuing throughout the school years at increasing levels of comprehension, and . . . that the concept of the family as a unit of society based on mature, responsible love be a continuing and pervasive educational goal." A year later, the Joint Committee supplemented its 1964 resolution with another resolution pertaining to the role of the physician in sex education recommending ". . . increased emphasis in medical schools and continuing education programs to orient physicians in the area of sexual attitudes and behavior. . . ."

The AMA Committee on Human Reproduction during its deliberations became convinced that improved public, as well as professional, education is an essential ingredient to meeting today's issues concerned with human sexuality. In this regard, the Committee recommended in 1964 that "the AMA take the responsibility for disseminating information on all phases of human reproduction, including sexual behavior, by whatever means are appropriate within the resources of the Association." In 1968, the Committee also recommended that the "AMA provide source material and educational opportunities for school and community health educators to improve their understanding and knowledge regarding human sexuality and family life education."

At its Annual Convention in San Francisco in 1968, the House of Delegates of the American Medical Association approved a number of recommendations concerned with the improvement of infant mortality in the United States. Among these recommendations was one dealing with education as follows: "The American Medical Association should inaugurate and support programs of health education, including good maternal and child health practices, family life and sex education and the appropriate use of health care resources."

In 1968, a special ad hoc committee of the Board of Trustees of the American Medical Association studied needs in the area of human reproduction. As a result of its deliberations, this Committee reported a series of recommendations about medical school and continuing education programs designed to "assist the physician in dealing with problems of sexuality in medical practice and in his role as a counselor in family life education." In the same report, the Committee also made a series of recommendations encouraging ". . . the teaching of human sexuality as a basic aspect of health education in schools and colleges" and the ". . . preparation of teachers properly equipped to handle sex education as a significant aspect of health education." The recommendations were approved by the Board of Trustees in December, 1968.

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* American Medical Association Staff Summary, March, 1969.

In AMA deliberations relating to sex education, there has been a continuing emphasis on a number of guiding principles that are considered basic to education in this area. Included among these are the concepts that (1) the basic responsibility for sex education belongs to the home, but the church, school and some other community agencies have a supplementary role in reinforcing and supporting the efforts of the home; (2) that involvement of broad representation from the community in both the planning and conduct of sex education in schools is essential to acceptable inclusion of this sensitive area in the health education curriculum; (3) that the physician, with a sensitivity to the need for counseling in sex education, can contribute significantly to education of his patients in this area; (4) that those persons involved in supporting the efforts of the home through sex education in churches, schools and other appropriate agencies must be exemplary individuals who are carefully selected and properly prepared for this important responsibility; (5) that sex education in the schools should be an integral and important aspect of the overall health education program and not a separate course, project or program; and (6) that materials of instruction used in sex education must be carefully selected with respect to school and child level placement, general and educational suitability, physiological and psychological accuracy and appropriateness and community acceptance in terms of local conditions, customs and traditions.

The American Medical Association and many other national agencies and organizations concur with respect to sex education for children and youth. Below are listed some of the national groups which have made statements or issued supporting documents on the matter:

American Academy of Pediatrics
American Association for Health, Physical Education and Recreation
American College of Obstetricians and Gynecologists (Committee on Maternal Health)
American Public Health Association (Governing Council)
American School Health Association
Interfaith Commission on Marriage and Family Life (Synagogue Council of America, U. S. Catholic Conference, National Council of Churches)
National Congress of Parents and Teachers
National School Boards Association and American Association of School Administrators (Joint Committee)
National Student Assembly of the YMCA and the YWCA
Sixth White House Conference on Children and Youth
United Nations Education, Scientific, and Cultural Organization
United States Department of Health, Education, and Welfare (Commissioner of Education)

* * *

At the AMA Convention in New York City on July 13-17, 1969, the House approved a new program concerning sex education. While recognizing "that the primary responsibility for family-life education is in the home," the House supported in principle the inauguration by State Boards of Education or school districts, whichever is applicable, of a voluntary family life and sex education program at appropriate grade levels, as follows:

"(1) As part of an overall health education program; (2) presented in a manner commensurate with the maturation level of the students; (3) following a professionally developed curriculum foreviewed by representative parents: (4) including ample and continuing involvement of parents and other concerned members of the community; (5) developed around a system of values defined and delineated by representatives comprising physicians, educators, the clergy and other appropriate groups; and (6) utilizing class room teachers and other professionals who have an aptitude for working with young people and who have received special training."

* * *

For a number of years the Joint Committee on Health Problems in Education has published and made available at cost a series of booklets on sex education for children of various ages and their parents. Readers are invited to send inquiries to AMA, 535 North Dearborn, Chicago, Ill. 60610 (Box #10).

ELLIS FISCHEL STATE CANCER HOSPITAL
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8:30 AM	*Registration* (No fee)
9:00 AM	*Welcome, Virgil T. Yates,* Ellis Fischel Hospital Administrator. *Introduction,* Lester S. Garfinkel, M.D., Dept. of Medicine, EFSCH.
9:15 AM	*"Death"*—A movie depicting the clinical course of a terminal cancer patient.
10:00 AM	*John D. Vavra, M.D.,* Department of Hematology, Washington University School of Medicine, St. Louis
10:40 AM	*Coffee Break*
11:00 AM	*Elizabeth K. Ross, M.D.,* Department of Psychiatry, University of Chicago Pritzker School of Medicine
11:40 AM	*Questions*
12-NOON	*Luncheon,* Holiday Inn West Motel
1:15 PM	*Jeanne C. Quint, R.N., M.S.,* University of California School of Nursing, San Francisco
1:55 PM	*Hans O. Mauksch, Ph.D.,* Department of Community Health and Medical Practice, University of Missouri School of Medicine-Columbia
2:35 PM	*Coffee Break*
3:00 PM	*Panel Discussion*—John D. Vavra, M.D., Elizabeth K. Ross, M.D., Jeanne C. Quint, R.N., M.S. and Hans O. Mauksch, Ph.D.

(This program has been approved for five hours of AAGP Credit.)

The Ellis Fischel State Cancer Hospital and Cancer Research Center Professional Program is open to all members of the medical, nursing, social work and allied health professions in Missouri. For more information, write to Lester S. Garfinkel, M.D., Department of Medicine, Ellis Fischel State Cancer Hospital, Business Loop & Garth Ave., Columbia, Mo. 65201

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Missouri Medicine

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DONALD G. SPALDING, M.D., ***St. Louis***

Radioisotope Encephalography and Brain Tumors

Brain scanning first came into being some 20 years ago when Moore[1] demonstrated that certain brain tumors were capable of selectively taking up radioactive fluorescein.

The development of a photoscanner in 1957[2] greatly enhanced and improved the field of radioisotope encephalography. Since that time, the technical advances have been many and, with the improved equipment now available, organ isotope scanning has become largely an automated procedure capable of being carried out by a trained radioisotope technician.

The use of the photoscanner in large numbers of patients with a variety of intracranial lesions has permitted more than ample evaluation of its worth and is now accepted as a simple, painless and safe diagnostic procedure with complementary value to other established diagnostic studies.

Commonly Used Isotopes

Various isotopes have been used, the most common being radioactive iodine, mercury and technetium pertechnetate (^{99m}Tc). The choice of a given radioactive pharmaceutical is determined by its capacity for differential concentration between normal and abnormal tissue, its ease of preparation and cost.

Table 1 lists the isotopes used in brain scanning which are administered intravenously. The proper intravenous dose, half-life and radiation dose to the whole body and the dose to the so-called "critical organ" are tabulated. We prefer to use ^{99m}Tc for diagnostic procedures because of its physical characteristics of short half-life, low gamma emission and absence of beta radiation, thus permitting large dose and rapid scanning time and, therefore, low radiation dose to the patient. Actually, in most cases, ^{99m}Tc scintiscan gives less radiation than the cerebral angiogram.

Interpretation

The interpretation of brain scans has to do mainly with areas of greater uptake of radioac-

TABLE 1

CALCULATED RADIATION DOSE FOR VARIOUS BRAIN SCANNING AGENTS*

Agent	*Intravenous Dose*	*Radiation Dose* TOTAL BODY	CRITICAL ORGAN
^{131}I albumin	375 μc	0.04 rad	2 rad (blood)
^{203}Hg chlormerodrin	750 μc	0.18 rad	165 rad (kidney)
^{197}Hg chlormerodrin	750 μc	0.08 rad	13 rad (kidney)
^{197}Hg plus 5% ^{203}Hg chlormerodrin	750 μc	0.09 rad	21 rad (kidney)
^{99m}Tc pertechnetate	10 mc	0.13 rad	1-2 rad (large bowel)

* From Wagner, H. N., Jr.: Radioisotope techniques in the diagnosis of diseases of the central nervous system, Radiol. Clin. N. Amer. 4:203-215 (April), 1966.

tivity, i.e., the areas of greater metabolic turnover and those related to increased vascularity, which gives one a definite change in the normal so-called "blood-brain barrier."

Technique

The basic technique consists of the intravenous injection of 10 mc of ^{99m}Tc. After a waiting period of approximately three to five minutes, the anterior, posterior and both lateral views of the brain are scanned and recorded. An attempt should be made to block the thyroid gland in children and young adults with oral Lugol's solution in order to decrease radioactivity in the thyroid gland area. If radioactive mercury is to be used, the kidneys should be blocked with 1 cc of nonradioactive meralluride the day before the scintiscan is to be scheduled.

Scanners

The most widely used scanner is the rectilinear photoscanner, which is available in this hospital. These instruments are essentially scintillation detectors that record gamma emissions on photographic film. By increasing both gamma activity and crystal size and number, modern photoscanning has become a rapid, easily accomplished procedure for detecting abnormalities of many body organs.

Contraindications

The only contraindication to the use of brain scan is sensitivity to the isotope. Radiation dose should be kept to a minimum which is easily done with ^{99m}Tc. This is especially important in women who are pregnant and in children, as well as those patients requiring repeated scans. Photoscanning requires the cooperation of the patient for a period of from 30 to 40 minutes; it is extremely difficult if the patient cannot remain still for this time period.

Normal Scan

In the normal ^{99m}Tc brain scan, there is a circumferential area of increased activity about the scalp and facial area due mainly to increased vascularity. There also may be evidence of increased radioactivity in the area of the superior longitudinal and transverse sinuses of the dura and, especially, the confluence of the sinuses in midline. One occasionally may encounter increased radioactivity in the areas of the choroid plexus of the lateral ventricles. If this occurs and becomes a diagnostic problem, it may be resolved with an oral ingestion of potassium perchlorate which has been found to eliminate the normal variant of increased radioactivity.[3] The normal brain scintiscan is shown in Figs. 1-A and 1-B.

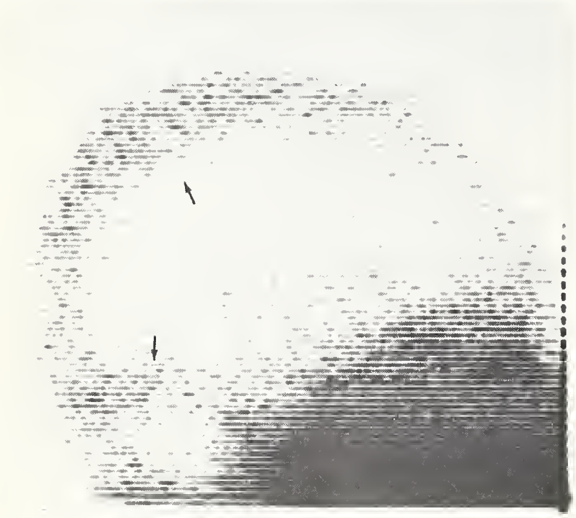

Fig. 1-A Normal lateral brain scintiscan. Note normal increased radioactivity in posterior fossa from transverse dural sinuses and about the scalp, skull and meninges *(arrows)*.

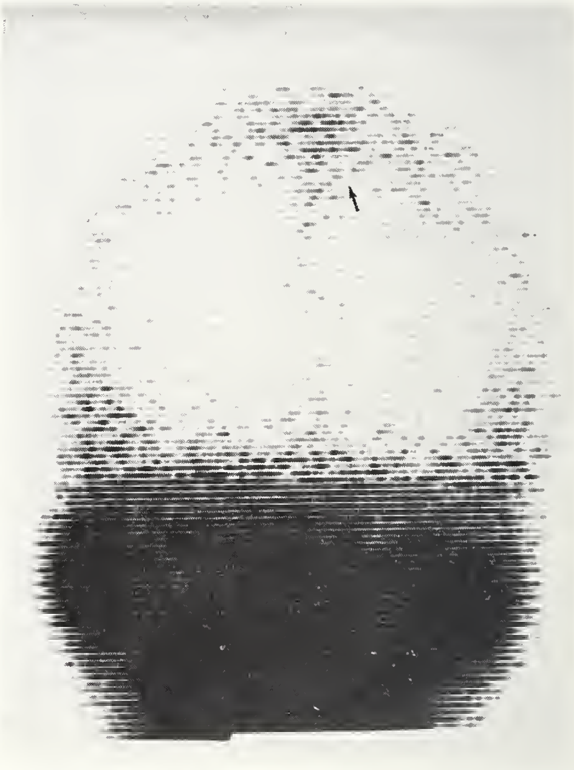

Fig. 1-B Normal anterior-posterior brain scintiscan. Note superior longitudinal dural sinus.

ABNORMAL SCAN

Brain photoscanning has its greatest usefulness in the diagnosis and localization of brain tumors. It also is very useful in the case of vascular lesions and may be helpful in detecting traumatic and inflammatory lesions.

A positive brain scan has a high degree of reliability as seen by data in Table 2. A negative brain scan, however, does not exclude the presence of organic intracranial disease. Therefore, if other neurological and neurosurgical procedures indicate the presence of disease, follow-up scans should be performed.

In brain scanning, the main objective is to detect areas of increased radioactive uptake, except in rare instances of diagnosing hydrocephalus or brain cysts. It has been fairly well established that a lesion usually has to be from 1.5 cm to 2.0 or more in size to be detectable through photoscanning. Lesions in the areas at the base of the skull or the posterior fossa are generally more difficult to perceive because the radioactive concentration is obscured by the overlying muscle and vascular areas.

In the Radioisotope Department of St. John's Mercy Hospital, brain scanning has its chief usefulness in the detection of intracranial tumors. Table 2 lists all brain tumors diagnosed at St. John's Mercy Hospital with the aid of brain scanning for a period of approximately three and one-half years from June, 1965 to December, 1968. Representative brain tumor scans are visualized in Figs. 2-A and 2-B, 3-A and 3-B, 4-A and 4-B, 5 and 6.

In the detection and diagnosis of brain tumors, brain photoscanning complements certain neurologic diagnostic methods, pinpoints the site of the tumor and occasionally may give some idea of the type of lesion by its appearance. As compared with angiography and pneumoencephalography, scanning is a preferable initial test when available. Dr. Spalding is a member of the staff of the Department of Radiology, St. John's Mercy Hospital and Assistant in Radiology, St. Louis University School of Medicine.

The present study consists of the results of 62 proven brain tumors diagnosed in patients in whom brain scans were performed. It is apparent in Table 2 that primary brain tumors are readily diagnosed on the brain scans. The diagnoses of meningiomas were 100% positive and, in the case of glioblastomas and astrocytomas combined, only four out of 27 were missed, resulting in an accuracy rate of approximately 85%. Metastatic lesions were a disappointment with only a 60% accuracy rate. However, this is lower than that recorded in this article review of the literature

TABLE 2

RESULTS OF BRAIN SCINTISCANS IN 62 PROVEN BRAIN TUMORS FROM JUNE, 1965, TO DECEMBER, 1968

Type of Lesion	*Total No. of Scans*	*Positive Scans*	*Percent of Total*	*Negative Scans*	
Meningioma	10	10	100%	—	
Glioblastoma	18	16	88%	2	(1 thalmus
Astrocytoma II and III	9	7	77%	2	(1 thalmus (1 post. fossa
Metastatic	13	8	61%	5	(1 post. fossa
Medulloblastoma	4	1	25%	3	(4 post. fossa
Craniopharyngioma	1	—	—	1	
Arachnoid cyst	2	—	—	2	
Brain infarct	5	4	80%	1	
Total	62	46	74%	16	
All tumors	55	42	76%	13	
Metastatic	13	8	61%	5	
Cerebral tumors and infarcts, excluding posterior fossa	56	45	80%	11	
Posterior fossa lesions	9	2	20%	7	
Major tumors (meningioma, glioblastoma, astrocytoma II and III	37	33	90%	4	

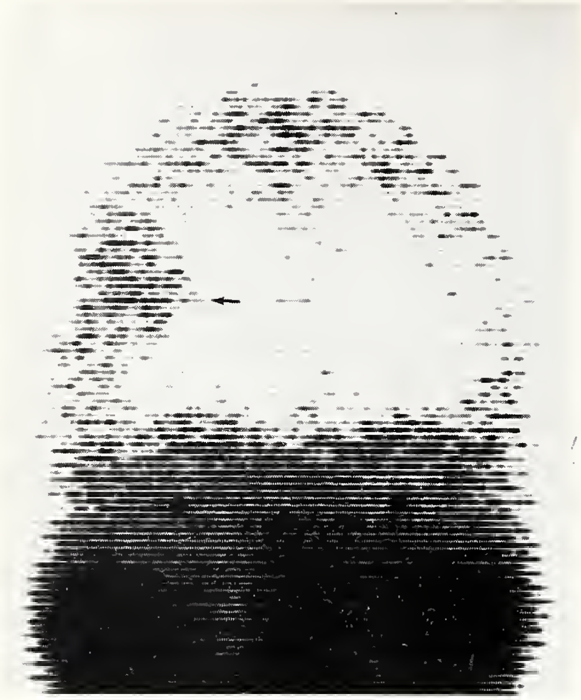

Fig. 2-A Anterior-posterior brain scintiscan in 30-year-old woman, revealing positive area in right frontal region *(arrow)*, which proved to be a meningioma.

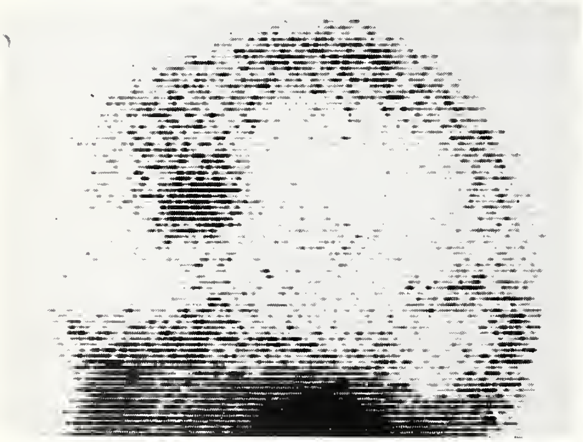

Fig. 2-B Right lateral scintiscan, revealing same meningioma as in Fig. 2-A.

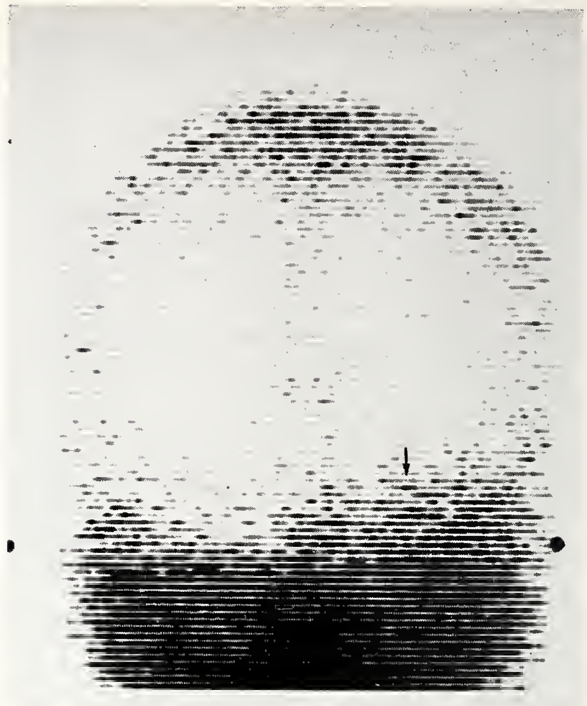

Fig. 3-A Posterior-anterior scintiscan, revealing positive area in left posterior fossa *(arrow)*, which proved to be a meningioma in a 60-year-old woman.

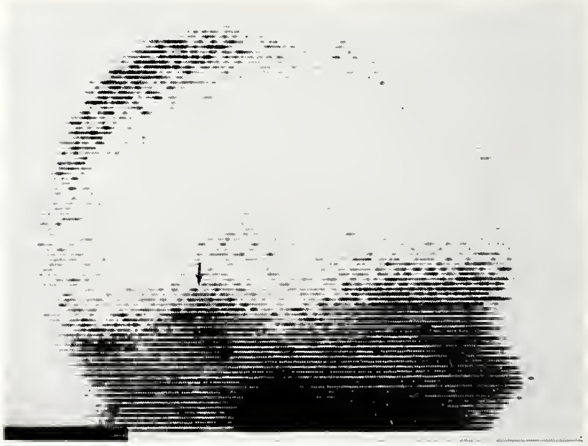

Fig. 3-B Left lateral scintiscan in same case as Fig. 3A, with the meningioma in the posterior fossa *(arrow)*.

(70% to 80%).[4–12] In reviewing these cases of metastatic lesions, the brain scans frequently were not repeated in patients with known primary disease; also, if the scans were negative early in the patient's course, they were not repeated later and positive diagnosis was made by exploration or autopsy. Posterior fossa lesions (occurring mostly in children) revealed poor results, which also is generally true in the literature.[4–12] Cerebral infarct and hemorrhage revealed an 80% positive scintiscan. The best results are obtained if the procedure is done from four to seven days after the onset of the hemorrhage or infarction or both. Then, within two or three months, there is usually visible clearing of the positive area. In the case of a tumor, however, the positive scan either stays the same or becomes more clearly demarcated.

Conclusion

It generally is accepted that there has been a gradual rise in the absolute incidence of intra-

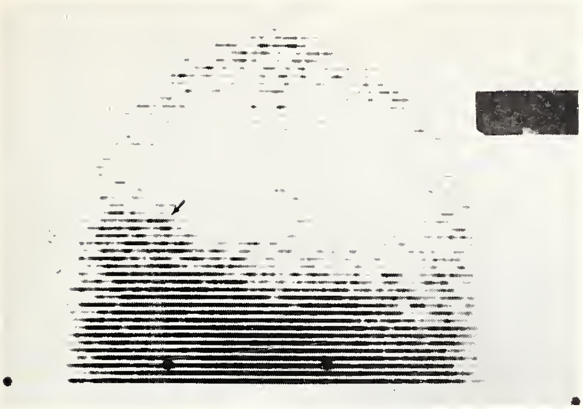

Fig. 4-A Anterior-posterior scintiscan, which reveals a positive area on left *(arrow)*.

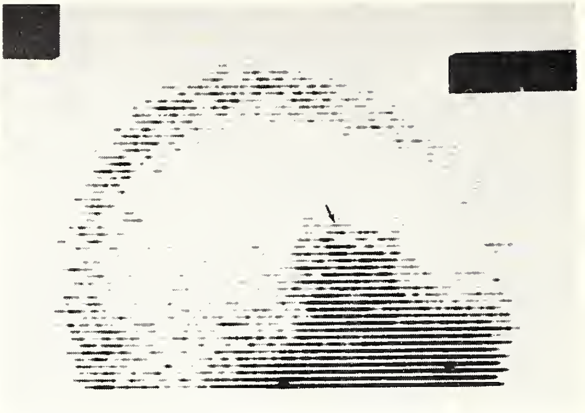

Fig. 4-B Left lateral scintiscan shows positive area to be in anterior temporal area *(arrow)*. This tumor was an Astrocytoma Grade II.

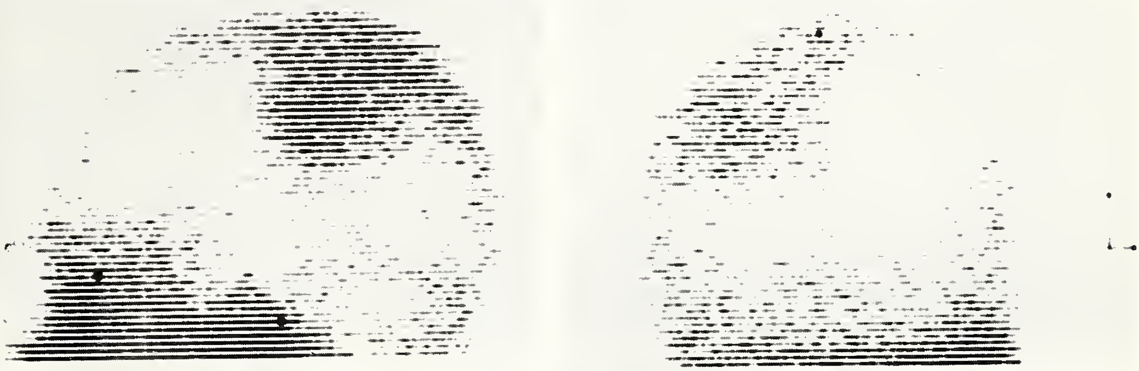

Fig. 5 *(Left)* Right lateral scintiscan and *(right)* anterior-posterior scintiscan reveal a meningeal sarcoma in right posterior parietal area.

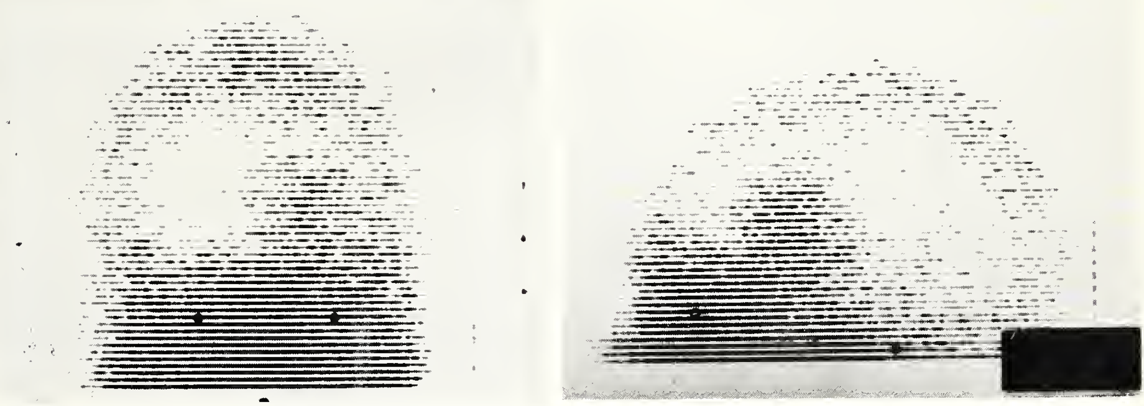

Fig. 6. *(Left)* Anterior-posterior scintiscan and *(right)* left lateral scintiscan reveal a glioblastoma in left anterior temporal area.

cranial tumors and, we think, the need for a simple, accurate test in "initial" screening of central nervous system signs and symptoms has been accomplished with the brain scintiscan, especially in evaluating the cerebral hemispheres. Brain photoscanning complements such neurologic diagnostic methods as the patient's history, physical examination and vascular and air studies. The advantage over the use of cere-

(Continued on page 875)

HUBERT J. VAN PEENEN, M.D., ***Columbia***

Admission Laboratory Test Batteries in Diabetes Mellitus

It is becoming customary in many hospitals to expedite the work-up of inpatients by performing an admission battery of commonly-ordered laboratory tests. The approach is justified since most of the tests involved are ordered anyway during the hospitalization. Results are available sooner and are less expensive if they are done as an admission procedure.

We wished to know if there were other benefits of the admission battery and, specifically, if it could contribute to the early detection of one disease, diabetes mellitus.

Materials and Methods

All adult inpatients at the University of Missouri Medical Center were subjected on admission to a test battery consisting of serum glucose, urea nitrogen, creatinine, uric acid, calcium, inorganic phosphorus, alkaline phosphatase, glutamic oxalacetic transaminase, total protein and albumin and cholesterol. Blood was drawn in the fasting state between 7 AM and 8:30 AM. Tests were done on a system of linked AutoAnalyzers using methods recommended to the manufacturer. Results were not reported to the attending physicians who, therefore, independently ordered the same laboratory tests if they felt they were indicated.

Since an admission battery of laboratory tests of inpatients as an admission procedure at many hospitals has proved to produce results sooner and at less expense, the author wished to know if there were other benefits of the admission battery and, specifically, if it could contribute to the early detection of one disease, diabetes mellitus. He discusses the results of this investigation. Dr. Van Peenen is director, Multiphasic Testing Project, Missouri Regional Medical Program and Professor of Pathology, University of Missouri School of Medicine. This work was supported in part by grants RM-0009, HM-00374 and CD-00235 of the USPHS and the Missouri Regional Medical Program.

Results were defined as normal or abnormal by comparing them to an "optimal range of health" derived from the test results of healthy young student blood donors. Since uric acid is elevated in young males, an arbitrary upper limit of normal for uric acid was set at 6.4 mg/100 cc. The precision of measurement and this arbitrarily chosen "optimal range" are shown in Table 1.

TABLE 1

Test	*Optimal Range*	*Precision Error of Measurement (Standard Deviation)*
Glucose	**60-120 mg/100 cc**	**± 3 mg/100 cc**
Urea Nitrogen	**4-21 mg/100 cc**	**± 0.5 mg/100 cc**
Creatinine	**0.4-15 mg/100 cc**	**± 0.09 mg/100 cc**
Alkaline Phosphatase	**4-15 K.A.U.**	**± 0.6 K.A.U.**
SGOT	**8-44 S.F. units**	**± 4 S.F. units**
Calcium	**8.7-11.0 mg/100 cc**	**± 0.3 mg/100 cc**
Inorganic Phosphorus	**2.0-5.3 mg/100 cc**	**± 0.2 mg/100 cc**
Cholesterol	**120-250 mg/100 cc**	**±10 mg/100 cc**
Uric Acid	**2-6.4 mg/100 cc**	**± 0.2 mg/100 cc**
Total Protein	**6-8.5 gm/100 cc**	**± 0.1 gm/100 cc**
Albumin	**3.8-6.0 gm/100 cc**	**± 0.3 gm/100 cc**

Clinical data were abstracted from the patient's chart using a standard form. All diagnoses were accepted as made by the attending physician. Most of the patients were between 40 and 70 years of age. The sex distribution varied with diagnosis. Test results were slightly affected by age and sex, but the variations were so small compared to those induced by disease that they were ignored.

Test result and chart information was entered into an IBM 360-50 computer and rearranged by it to fit the needs of the study. Patients were divided by major diagnostic category and by whether or not they also were diabetic. The principal diagnosis was used in assigning diagnostic category. It was not possible to make mutually exclusive diagnostic categories since most patients had several diagnoses.

Test results were printed out for each patient. Mean test results and variance for the frequency distribution in each group were calculated and the number of patients in each group with values abnormal by the standards listed in Table 1 was determined.

Tests ordered for each patient by his physician during the hospitalization were obtained from computer-maintained data files. In this way, it was possible to evaluate physician use of the tests in the battery. It also was possible to discover which patients had been subjected to glucose tolerance testing for the definitive diagnosis of diabetes mellitus.

Results

More than 30 diagnostic groups were represented in the original 2,500 patients. A representative selection (1,413) of them is shown in the tabulation of results in Tables 2 and 3. Results for tests not shown did not differ from one diagnostic group to another. Trends for the other diagnostic groups were similar to those shown. The population frequency distributions frequently were not gaussian. In nearly every case, the lack of statistical normality is related to factors other than diabetes. Differences underlined in the tables are statistically significant at the .05 level when compared to patients with primarily functional disease.

Tests independently ordered by the attending physician are shown for two categories in Table 4. Test utilization was comparable in most of the other diagnostic categories.

Four hundred eighty-six of the patients in the study had fasting hyperglycemia by the criteria cited. Two hundred eighty-eight were considered diabetic on admission. However, there was only partial overlap between groups. Only 160 of the 486 hyperglycemic patients were diagnosed as diabetic. Conversely, of 288 diabetics, only 103 were hyperglycemic on admission. Only 55 of the other 185 had been previously diagnosed and, therefore, possibly were under therapy. How the diagnosis was made in the remaining 135 patients could not be ascertained from the chart.

Discussion

Table 4 shows that admission battery testing is worthwhile. Physicians already order most of the tests included in the battery at some point in the hospitalization. It seems self-evident that it is far cheaper and more convenient to do the tests at once on an instrument such as the SMA-12-60 at a cost of $10.00 per battery, than to order them individually at a cost of $3.00 to $5.00 per test. Diagnostic information also can be provided earlier and, hence, should shorten the hospital stay.

Unfortunately, only one test in the battery is more commonly abnormal in diabetics than in comparable non-diabetics. As expected, that test is fasting blood sugar. Even it will identify only something less than half the diabetics and will give false positive results in about 15% of the patients sampled. It, thus, lacks both specificity and sensitivity.

Other test result abnormalities show a few slight, but statistically significant, correlations with diabetes and other diagnostic categories.

TABLE 2

TEST RESULTS, MEAN AND ONE STANDARD DEVIATION

Diagnosis	*N*	*Mean Age*	*Glucose*	*Urea N.*	*Creat.*	*SGOT*	*Chol.*	*Uric A.*
Diabetes	329		*166* ± 78	22 ± 16	*1.4* ± 1.6	28 ± 19	209 ± 50	5.6 ± 2.0
Psychiatric	244	46	107 ± 37	17 ± 6	1.1 ± .2	25 ± 8	210 ± 45	5.4 ± 1.7
Peptic Ulcer	76	51	100 ± 32	19 ± 7	1.1 ± .2	25 ± 20	198 ± 51	5.1 ± 2.0
Hernia	110	61	103 ± 30	21 ± 9	1.1 ± .2	26 ± 14	205 ± 45	5.8 ± 2.0
Emphysema	138	62	110 ± 42	20 ± 8	1.2 ± .4	24 ± 9	202 ± 41	5.6 ± 1.6
Obesity	95	48	*126* ± 62	17 ± 4	1.1 ± .2	28 ± 14	208 ± 41	*6.5 ± 1.5*
Arteriosclerotic Heart Disease	319	61	*123* ± 54	22 ± 11	1.2 ± .4	26 ± 10	215 ± 49	5.9 ± 1.8
Cholecystitis	53	55	115 ± 53	20 ± 13	1.2 ± .5	33 ± 25	213 ± 47	5.6 ± 2.4
Renal Disease	49	49	*153* ± 87	*61* ± 45	5.5 ± 4.9	27 ± 17	216 ± 58	*8.6 ± 2.7*
	1,413							

TABLE 3

PER CENT OF PATIENTS IN GROUP WITH ABNORMAL TESTS

Diagnosis	*N*	*Glucose*	*Urea N.*	*Creat.*	*SGOT*	*Chol.*	*Uric A.*
Psychiatric							
Diabetic	29	*55*	*31*	7	7	7	14
Non-Diabetic	215	11	18	3	11	13	8
Peptic Ulcer							
Diabetic	8	*37*	37	0	0	12	0
Non-Diabetic	68	10	34	4	4	16	4
Hernia							
Diabetic	13	*31*	23	8	8	15	0
Non-Diabetic	97	18	33	4	4	15	7
Emphysema							
Diabetic	16	*56*	56	12	6	12	19
Non-Diabetic	117	15	40	13	8	17	8
Obesity							
Diabetic	31	*52*	23	10	10	6	29
Non-Diabetic	64	9	10	8	14	9	27
Arteriosclerotic Heart Disease							
Diabetic	62	*49*	50	15	11	19	13
Non-Diabetic	257	18	35	16	7	20	17
Cholecystitis							
Diabetic	13	*54*	*38*	31	15	31	23
Non-Diabetic	61	21	25	6	15	12	15
Renal Disease							
Diabetic	14	*71*	85	78	*28*	*36*	50
Non-Diabetic	35	26	60	63	6	17	51

This is especially true if the diabetes is complicated by renal decompensation. Patient variability, however, is such that the differences are not diagnostically useful in individual situations. Specifically, it has not been possible to propose a pattern of several abnormal test results which better identifies diabetic patients than does the presence of fasting hyperglycemia by itself. When other tests, such as urea nitrogen or glutamic oxalacetic transaminase, show an increased incidence of abnormality, it can be ascribed to an associated disease rather than diabetes.

Some of the failure to find diagnostic patterns for diabetes reflects variability in the diagnosis of diabetes mellitus, especially in the decision regarding when to follow up the finding of fasting hyperglycemia.

Confirmation would require an adequate glucose tolerance test with or without additional stress such as the administration of insulin, tolbutamide or steroids. Only 156 of the entire sample of 288 diabetics had glucose tolerance curves recorded. Thirty of the curves were not diabetic by the criteria of the United States Public Health Service. Most of the rest were characterized by fasting level of blood glucose considerably higher than 125 mg/100 cc.

Similarly, it was difficult to see why many hyperglycemic patients were not labeled diabetic. Of the 318 nondiabetic hyperglycemic patients, only 29 had glucose tolerance curves. All 29 were negative for the disease, but the other 295 patients could well harbor a number of undiagnosed diabetics.

Such inconsistencies compound the difficulty in preparing patient and control groups for studies such as this. Nevertheless, if Multiphasic Testing is to be diagnostically useful, it must succeed

TABLE 4

NUMBER OF TESTS PER GROUP ORDERED BY ATTENDING PHYSICIANS

Diagnosis	*N*	*Glucose*	*UN*	*Creat.*	*Alk. Ptase.*	*SGOT*	*Ca*	*P*	*Chol.*	*U.A.*	*T.P.*
Diabetes	288	267	274	201	140	113	99	91	157	72	137
Renal Disease	48	38	46	46	21	19	28	29	22	21	32

under the less than ideal circumstances that prevail in every day practice. Within these limitations, it is not particularly valuable in identifying diabetic or potentially diabetic patients.

Summary

1. Routine admission testing with commonly-ordered clinical laboratory tests is justified. Most of the tests in the admission battery are eventually ordered by the attending physician. Automated laboratory equipment can save both time and money.

2. Fasting hyperglycemia will identify less than half of the diabetic patients. Other than fasting hyperglycemia, there is no distinctive cluster of abnormal laboratory results in diabetes mellitus.

3. Physician follow-up of abnormal blood glucose results and eventual characterization of a patient as diabetic is not always consistently done.

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Radioisotope Encephalography

(Continued from page 871)

bral angiography and air studies is essentially complete freedom from complications and discomfort. It should be noted, however, that this is just one of the methods to be utilized in a thorough neurological work-up. It can become a particularly helpful and preferable diagnostic test when there is evidence of increased intracranial pressure if the patient is frail or has vascular disease, since this adds to the hazards of angiography. The diagnostic accuracy discussed in this paper is in satisfactory correlation with the literature reviewed of 75% to 85%.[4–12]

A localized, well-demarcated area on the scintiscan almost always indicates a localized organic lesion. A positive scan, however, is not specific for intracranial neoplasm. Therefore, it is imperative that other confirmatory procedures are carried out before surgical exploration is considered.

It is the opinion of the author that the technic of brain scintiscanning in the evaluation of intracranial tumors deserves its rightful place in present-day medical practice equal to that of cerebral angiography and pneumoencephalography. It should become a part of the routine for brain tumor investigation preceding air studies and angiography.

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The Chicago Medical Society is offering two Postgraduate Courses this fall. A course in Internal Medicine will be held during the week of November 3 through 7 and a course in Pediatrics will be held from November 17 through 21. The courses will be held at the Lake Tower Inn, Lake Shore Drive at Ohio Street, Chicago.

Registration is limited. The fee for each course is $150.00. A limited number of resident physicians will be accommodated at a reduced fee. For further information, contact the Chicago Medical Society, 310 S. Michigan Ave., Chicago, Ill. 60604.

RUHERI PEREZ-TAMAYO, M.D. *and*
MERCEDES SOBERON, M.D., ***Columbia***

The Place of Radiotherapy in the Treatment of Bronchogenic Carcinoma

The place of radiotherapy in the treatment of bronchogenic carcinoma frequently has been underestimated,[1–4] questioned[5–9] and even denied,[3–5] but the case of radiotherapy is often misrepresented[10] and generally misunderstood.[11] The failure of "regional" radiotherapy to control early dissemination of the tumor outside the treatment area is commonly attributed to and mistaken for incomplete response of the primary growth. Early dissemination and local radioresponse, however, are two different problems and will require separate comment in defense of the case of radiotherapy in the treatment of bronchogenic carcinoma.

Local Radioresponse

In reference to the radioresponse of bronchogenic carcinomas, there is an accumulation of incontrovertible evidence indicating a high proportion of local control after radiotherapy. The evidence of control is based on clinical, surgical and autopsy findings.[12–19] The following are examples of published references about the capacity of radiotherapy to produce local control:

1. Preoperative radiation produced sterilization in 30% to 50% of the cases treated by Bromley, Lawton, and Bloedorn.[13, 20–23]
2. Local cures after radiotherapy were proven in autopsy material published by Haas, *et al* [24] in four of seven cases after radiotherapy; controls were obtained by Guttmann[25] in three complete local cures claimed following the autopsies of 19 cases; and local control was produced by Holsti[26] in 30% of 60 patients with inoperable lesions of all types of bronchogenic carcinoma as confirmed by autopsy.

Despite the pessimistic attitude of Watson[4] and the negative commentary of Overholt[15] in the denial of a single cure of bronchogenic carcinoma by radiotherapy and the allegedly shortened survival of irradiated patients, survival for five years or more without evidence of cancer has been produced even when the most indiscriminate use of radiotherapy is exercised on a group of "inoperable" patients. Morrison, *et al*[7] summarized the five-year survival rate published by several authors (Table 1), including a value of 6% five-year survival for his own series of inoperable patients.

Long Term Survival

The question of radiocurability, however, should not be answered with the expected low overall salvage rate that is obtained in the treatment of largely incurable series.[17–27] The same injustice could be said of thoracic surgery if inoperable cases were used to test the curability rate of surgery. The indiscriminate use of radio-

TABLE 1

RECENT REPORTS OF SURVIVAL-RATES AFTER RADICAL RADIATION TREATMENT

Report	*No. of Cases*	*Energy of Radiation*	*Tumor Dose*	*Proved*	*% Survival (yr.)* 1	2	3	4	5
Hilton and Pilcher (1955)	203	—	4000-5500 r	63	27	11	—	—	4
Schulz (1957)	385	250 Kv	4000 r	—	15	5	3	1	1
Smithers (1955)	171	240 kV	5000-7000 r	60	37	13	9	6	4
Krabbenhoft and Leucutia (1958)	132	2 MeV and 250 kV	Various	100	12	8	—	—	2
Shanks (1959)	136	240 kV	4000 r	—	61	15	10	3	2
Hammersmith Hospital (1949-1953)	176	240 kV	3250-4000 r	61	24	11	2	1	1
Present series (1953-1958)	277	8 MeV	4500 r	83	30	14	6	6	6

(From Morrison, R., *et al:* The Lancet 1967)[7] therapy has only obscured the merits of the method.[15] Better selection of patients is mandatory to judge true radiocurability, and this logical approach already has produced positive results in at least two studies.[17-19]

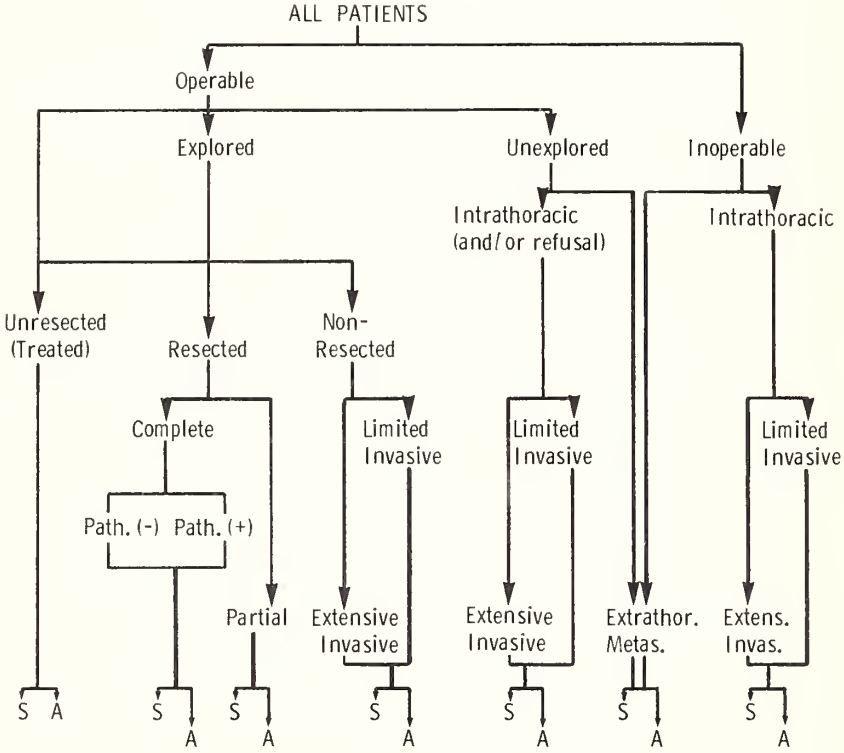
A clinical classification of patients, therefore, is essential for the selection of cases suitable for testing the efficacy of radiotherapy.[28] Fig. 1 illustrates the classification that is used to explain the premises of this presentation. It should be noted that patients are operable if their general clinical condition permits them to withstand whatever surgical procedure is required,[29] but the site, size and extension of the lesion are unrelated. Operable patients may not be explored (unexplored) because of refusal or the presence of extrathoracic metastases; the classifications of unexplored and inoperable include patients who may have lesions that are either limited or extensively invasive. All lesions may be symptomatic or asymptomatic.

The patients explored may be partially or completely resectable; some cases explored may be nonresectable, either because the lesions, although limited, have infiltrated, nonremovable structures or because they are extensively invasive and cannot be removed. The completeness of resection may be settled by clinical judgement or by histologic proof. More than 26% of the "complete" resections are found to be incomplete on the autopsy table.[10] Finally, there is a small group of patients with "unresected" early lesions that may or may not have been explored. These patients are the best testing ground for radiocurability.[17, 19] Hilton and Smart[18, 30] published a five-year survival rate of 22.5%, based upon a small group of unresected patients treated by radiotherapy alone.

A thorough presentation of a complicated and unresolved problem. Drs. Perez-Tamayo and Soberon speak here in defense of the case of radiotherapy in the treatment of bronchogenic carcinoma. The authors are from the Ellis Fischel State Cancer Hospital and Cancer Research Center. This paper originally was presented at the 1969 Spring Clinical Conference on Pulmonary Diseases at the University of Missouri School of Medicine.

Fig. 2 shows the usual distribution of the treatment modalities applicable in a random patient series. Only 35% to 45% of the patients in a series are explored,[31] for these, only 10% to 20%

Fig. 1 Bronchogenic carcinoma. Classification of patients.


ALL PATIENTS
Operable
Explored
Unexplored
Inoperable
Intrathoracic
(and/or refusal)
Intrathoracic
Unresected
(Treated)
Resected
Non-
Resected
Complete
Limited
Invasive
Limited
Invasive
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Path. (-) Path. (+)
Partial
Extensive
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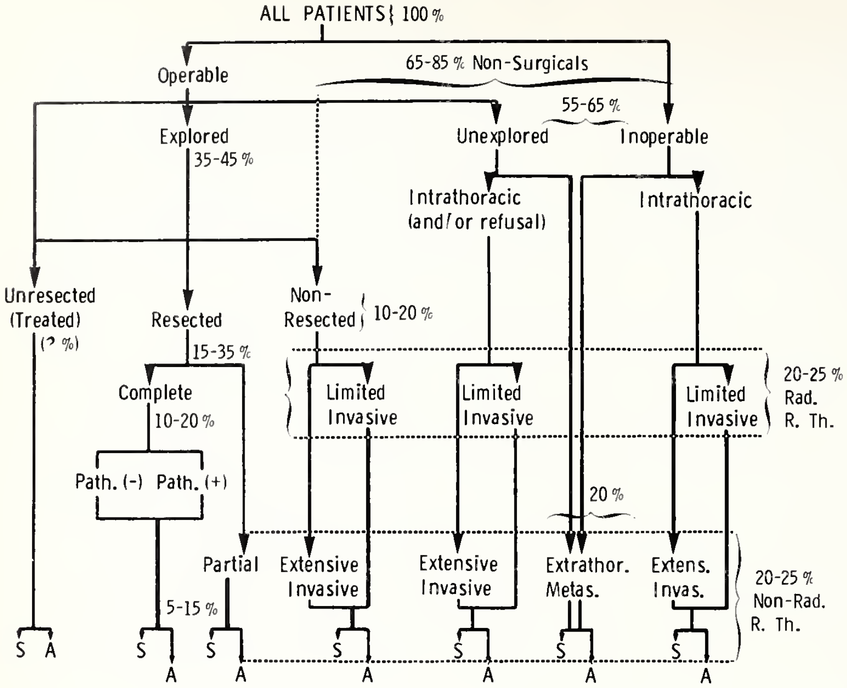
ALL PATIENTS{ 100%
Operable
65-85% Non-Surgicals
55-65%
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35-45%
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Intrathoracic
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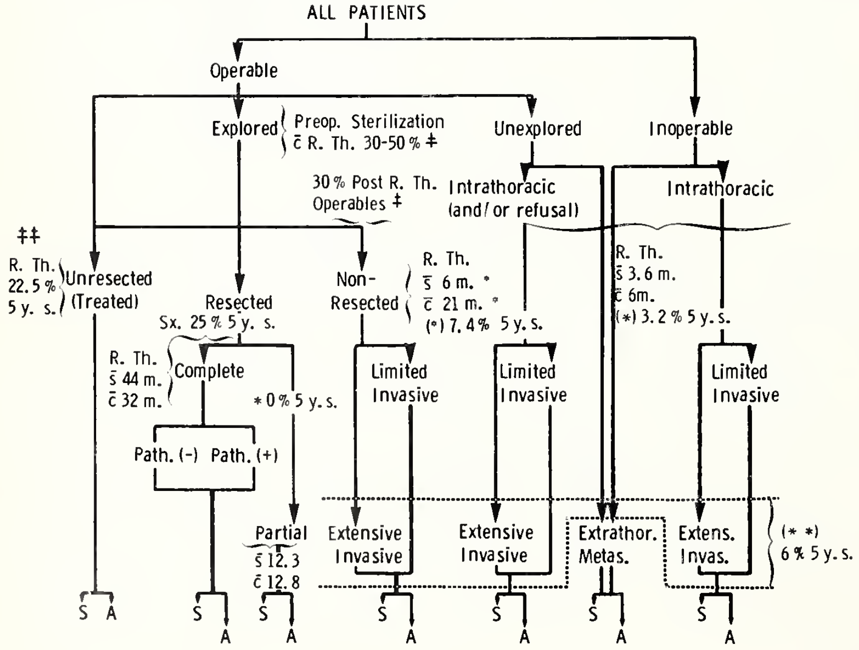
Fig. 2 Distribution of cases and treatment modalities.

of the lesions can be "completely" resected[31-33] (only 25% to 30% five-year survivals are recovered from the "complete" resection group).[11-34]

Compare this with the "unresected" counterpart.[18] Radical radiotherapy should be offered to all patients suspected of having an intrathoracic, limited invasive lesion (20% to 25% non-resected, unexplored, refusals and inoperables), and palliation should be considered for those patients with extensive and symptomatic disease, whether intra- or extrathoracic. In general, 65% to 85% of all the patients may need some type of radiotherapy, even if surgery is assumed to be the only treatment of resectable lesions.[19] Probably only one third of the patients with "inoperable" tumors deserve a radical course of radiotherapy.[15]

Based on reports of the literature,[35] Fig. 3 illustrates that radiotherapy doubles the average survival of the unexplored and the intrathoracic


ALL PATIENTS
Operable
Explored
Preop. Sterilization
c̄ R. Th. 30-50% ‡
Unexplored
Inoperable
30% Post R. Th.
Operables ‡
Intrathoracic
(and/or refusal)
Intrathoracic
‡‡
R. Th.
22.5%
5 y. s.
Unresected
(Treated)
Resected
Sx. 25% 5 y. s.
Non-
Resected
R. Th.
s̄ 6 m. *
c̄ 21 m. *
(*) 7.4% 5 y. s.
R. Th.
s̄ 3.6 m.
c̄ 6m.
(*) 3.2% 5 y. s.
R. Th.
s̄ 44 m.
c̄ 32 m.
Complete
* 0% 5 y. s.
Limited
Invasive
Limited
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Limited
Invasive
Path. (-) Path. (+)
Partial
s̄ 12.3
c̄ 12.8
Extensive
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6% 5 y. s.
S A
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Fig. 3 Average survival in months (Gobbel) with (c̄) or no (s̄) radiation (R. Th.). Treatment results after Guttman(*), Bromley, Lawton, Bloedorn et al. (±), Morrison and Deely (**), Hilton and Smart (‡).

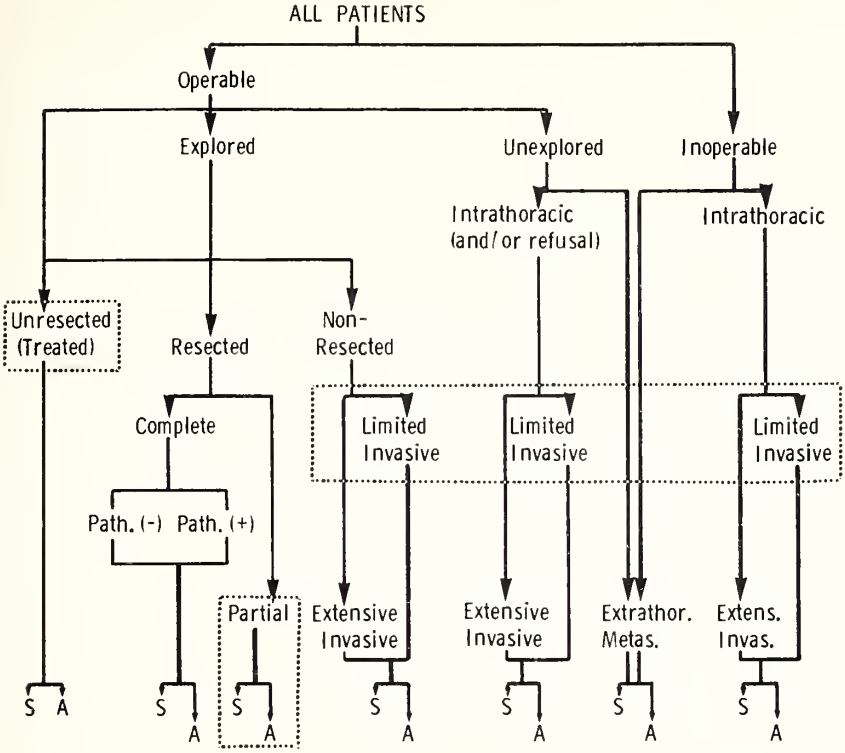

Fig. 4 Lesions that should be treated with radical radiation.

inoperable patients,[36] producing a 3.2% five-year survival.[37] It also illustrates that radiotherapy doubled the average survival of the explored and nonresected patients[36] and produced a five-year survival rate of 7.4%.[37] This interesting result should be contrasted with the unchanged average survival rate produced by radiotherapy after "complete" or partial resections and the lack of five-year controls after partial removals.[37] Transecting bronchogenic carcinoma may be responsible for this paradoxical result.[31] Dissemination may be promoted by surgical manipulation, and operative mortality cannot be dismissed.[33]

Fig. 4 summarizes the indications of radical radiotherapy at Ellis Fischel State Cancer Hospital. All cases of limited disease—unresected, nonresected, refusals, inoperable, partial resections—deserve a course of radiotherapy for cure. No optimistic expectations should ignore the fact that bronchogenic carcinomas are early disseminating lesions[3, 17, 38] in the overwhelming majority of the usual clinical series[6, 39] and that over all results will continue to be low until earlier detection is more of a reality.[5] The relative accuracy of the present tests is far from satisfactory.[40–41]

Fig. 5 summarizes the indications of radiotherapy with an intent to palliate. In general, only symptomatic lesions are considered for palliation.[5, 27, 42, 43] No increase in the average survival can be expected, and alleviation of symptoms in 50% to 75% of the patients is not exceptional.[7, 19, 25, 27, 44, 45] Radiotherapy courses with a resting gap in the middle are best indicated for palliation.[26, 46, 47]

In conclusion, the place of radiotherapy is heavily dependent upon the stage of dissemination of a bronchogenic lesion.[19] The case of radiotherapy, however, rests in frequently misunderstood clinical, surgical and autopsy findings which are, in our judgement, unequivocal evidence of acceptable levels of radioresponse and radiocurability. Therefore, a selected group of patients deserves further clinical investigation. Operable, unresected and limited invasive lesions should continue to be treated by radiotherapy alone[36] and the results should be compared with the results of a similar group submitted to surgery; partial resections and operable nonresected lesions should be compared once more, with and without the use of radiotherapy. If the results favor radiotherapy, incomplete resection should be abandoned.[37] Preoperative radiotherapy should be tried and especially in "resectable" lesions.[48] All discouraging publications expecting improvement in survival rate after lumping the "inoperable" cases into one big hopeless group should remember the distinction between curability of disseminated disease and control of local disease.[7, 17] The success

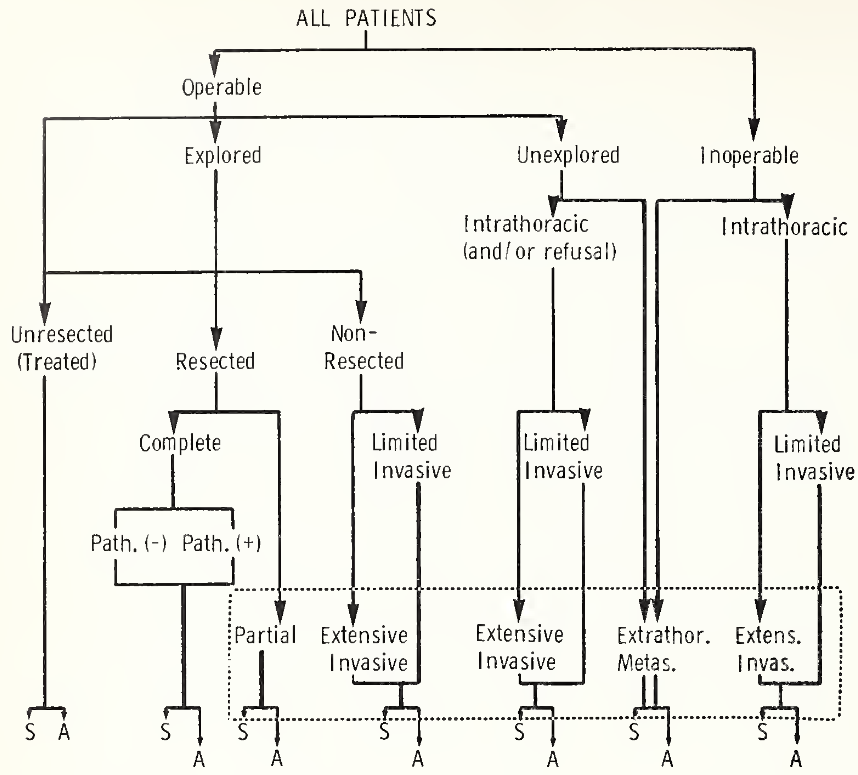

Fig. 5 Symptomatic lesions that should be considered for palliation.

of radiotherapy—or surgery for that matter—greatly depends upon the selection of suitable candidates.[28] If only 20% of a random series are patients with limited "curable" lesions by clinical judgement, but 75% of those are truly disseminated beyond the treated area, only 5%[49] of the overall series will survive more than five years when the survival rate is 25% in the curable lesions.[10, 11, 28]

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(Continued on page 882)

PAUL REILING, M.D. ***and***
STEPHEN F. BOWEN, JR., M.D., ***St. Louis***

Congenital Nasolacrymal Duct Obstruction in Infancy

Tear duct blockage in infants has been of interest for many years. As long ago as 1917, Green reviewed his experiences with children in this area in an article in Missouri Medicine.[1] One approach to the problem is presented here.

Nasolacrymal obstruction usually occurs as a result of obstruction at the lower end of the nasolacrymal duct. The obstruction is due to a delayed perforation of the nasolacrymal membrane which was shown to be present in 73% of full term stillborns.[2] This delayed perforation of the membrane may be followed by infection (dacryocystitis). Ffooks feels that infection occurs in the nasolacrymal duct that has remained imperforate at birth. The ensuing inflammatory reaction then converts this thin developmental membrane at the lower end of the nasolacrymal duct into a fibrous membrane, which results in an arrest of the final development of the nasolacrymal duct. If the infection is mild or can be well controlled early enough and long enough, the developmental membrane may break down naturally as the child grows.[3] There is no sex predilection or hereditary tendency proven. The incidence of this infantile dacryocystitis problem is stated to be between .50% and 5%. It is found to be bilateral in as many as 33.8% of the cases.[3]

Mucopurulent discharge is the initial symptom in 60% of the cases; epiphora is the initial symptom in 40% of the cases.[3] Symptoms will occur in involved children in 50% of the cases by the third day of life.[3] By the tenth day of life, 85% of children with the condition will be symptomatic.[4]

Many times the diagnosis is made by the pediatrician or the child's mother because of the mucopurulent discharge and persistent tearing. In doubtful cases, pressure over the nasolacrymal sac may produce additional pus. Fluorescein instilled into the cul-de-sac will remain pooled for ten or 15 minutes in cases of blocked tear drainage, but will disappear more rapidly if the system is patent. When epiphora and mucopurulent discharge are present in an infant, the examiner must consider the possibility of other diseases which include congenital glaucoma, corneal foreign body, conjunctivitis, keratitis and iritis.

Treatment can be divided into two main groups, namely, early surgery and delayed surgery.

In cases treated by early surgery, the nasolacrymal system is opened by probing during the patient's first visit to the ophthalmologist's office. This method avoids the dangers of general anaesthesia and recurrent dacryocystitis. It may avoid prolonged treatment, if successful. By this method, however, more than one probing often is needed and the dangers of creating false passages is much greater.

In cases treated with delayed surgery, the attack upon the system is delayed to age six months by using antibiotic drops and massage of the nasolacrymal sac. This method is based upon the work of Price who found that 90% of cases treated in this way became asymptomatic by age six months.[5] If the drainage apparatus still is clinically blocked, the surgery is carried out under general anaesthesia either by probing or irrigating the duct system. This method avoids probing children who are going to clear spontaneously and usually avoids the danger of making false passages. The hazards of general anaesthesia must be considered here, however.

The method of treatment reported here con-

A discussion of the two basic methods for treating congenital nasolacrymal obstruction in infants. The authors recommend the conservative approach and present a review of a series of 57 cases in which 54 or 94% of the children were cured by this method. Dr. Reiling, who was Chief Resident in Opthalmology at the St. Louis University Hospitals at the time this paper was written, is now in the private practice of ophthalmology in the state of Arizona. Dr. Bowen is Assistant Clinical Professor of Ophthalmology at the St. Louis University School of Medicine.

sists of conservative therapy until the age of six months, as based on the studies of Ffooks and Price. If symptoms still persist at this time, the symptomatic duct or ducts are probed under general anaesthesia in the hospital. After probing, fluorescein-stained saline is irrigated into the nasolacrymal duct and a rubber catheter with a glass Y tube is used to suction the nasopharynx. If stained fluid is returned by suction, the duct obviously is patent. If no stained fluid is obtained, the probing is repeated. If patency is not obtained, a dacryocystogram is done to locate, if possible, the area and nature of block. Additional therapy can then be carried out as indicated. The series reviewed consisted of 57 cases of nasolacrymal obstruction with a total of 72 ducts probed, a bilateral incidence of 28%. All the ducts were probed using the above method. It was found that 54 of the children or 94% were cured with one probing. Two children needed reprobing and one child required a dacryocystorrhinostomy. These initial failures will be discussed later. Of the 57 children, all but one were six months of age or older and eight were over one year of age. The one patient younger than six months was a child probed at age three months. He was first seen with a corneal ulcer at age two months and was treated with antibiotics; the nasolacrymal canal was probed as soon as practical to avoid additional corneal infections. Of the three children who required additional therapy, two were reprobed and cured at eight months of age. The remaining child, who had been probed more than 20 times without success elsewhere, was referred to the authors for a dacryocystorrhinostomy.

It would seem that delayed perforation followed by infection is the cause of most cases of congenital nasolacrymal obstruction. By conservative treatment of massage and antibiotic drops, if necessary, the normal development and perforation of the nasolacrymal membrane will continue to completion. In many cases, therefore, the conservative approach of not probing until after six months of age, unless complications occur, is indicated. By using the conservative method, one eliminates 90% of the potential probings, while not sacrificing the benefits in cases that really need probing. This is not necessarily the best method in all cases, but appears to be in a large majority of cases. One requirement, which may not be available in all areas, is good pediatric general anaesthesia. Without competent personnel, the safety of this method could be in question. In large metropolitan hospitals, however, this requirement can be met.

Summary

The two basic methods for treating congenital nasolacrymal duct obstructions are discussed. A series of cases, using the conservative approach, is reported. The rationale for the use of this method is discussed.

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The Place of Radiotherapy

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LUTHER J. WILLMORE, JR., M.D. *and*
KENNETH R. SMITH, JR., M.D., ***St. Louis***

Intracerebral Metastatic Hypernephroma Appearing 17 Years Postnephrectomy

Case Report

Renal cell carcinoma is an unusual, but not rare, tumor metastasizing to the brain. The genitourinary tract was the location of the primary tumor in 7% of Odom's 313 cases of intracranial metastatic tumors.[1] As many as 20% of such cases have been reported to be hypernephroma.[2]

Although the prognosis for a patient with a metastatic brain tumor is guarded, palliation in terms of longer survival often is effected by operative excision of the metastatic lesion, with the occasional patient living many years after craniotomy.

The following case report represents the longest interval reported between removal of a primary renal cell carcinoma and the appearance of an intracranial metastasis.

Case Report

The patient is a 71-year-old man who had complained of weakness in his legs for the three months prior to his admission to St. Louis University Hospitals. His illness began gradually with difficulty in walking, but without pain or claudication. He said that he could not feel his feet and would begin to feel weak soon after beginning to walk. His manual ability was affected by right-handed incoordination.

He did not have any back pain. His bowel and bladder habits were unchanged. His health had been good except for diabetes mellitus controlled with Orinase since his right nephrectomy for renal cell carcinoma on March 15, 1951.

Examination revealed an alert man with a narrow-based, shuffling gait. His sensory system was entirely intact. He had good muscle strength throughout. The deep tendon reflexes were 2+ and symmetrical. He had an extensor plantar response on the left and a question of a positive Chaddock response on the right. Serum and cerebrospinal fluid (CSF) serology were negative for syphilis. A complete myelogram was normal. CSF protein was normal. A brain scan was negative for tumor. Electroencephalogram revealed a generalized slow dysrhythmia. Posterior constriction of the left lateral ventricle was demonstrated by pneumoencephalography. A left carotid angiogram revealed a 20 mm tumor stain in the left occipital region (Fig. 1). An intravenous pyelogram demonstrated a normal left kidney.

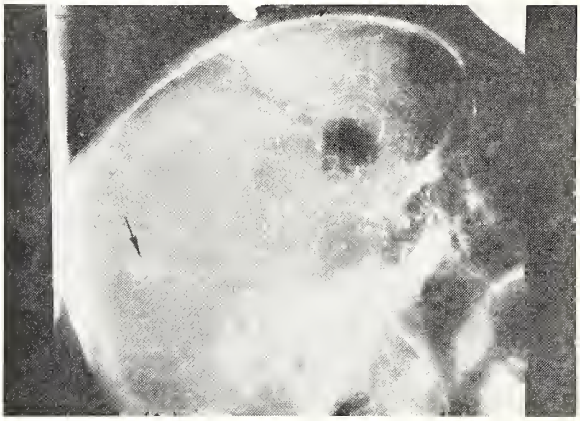

Fig. 1 This left carotid arteriogram shows a 2 cm spherical tumor stain in the occipital lobe *(arrow)*. Some residual air and pantopaque are present in the ventricular and subarachnoid spaces from previous pnuemoencephalogram and myelogram.

The patient underwent a left occipital craniotomy 21 days after admission. The tumor which was removed proved to be a metastatic renal cell carcinoma.

The patient's postoperative course was reasonably unremarkable until the third day when he developed a rather marked right hemiparesis. A left carotid arteriogram was unchanged from the preoperative one except for absence of the tumor stain. He was discharged from the hospital to the care of a nursing home on the 20th postoperative day.

We believe the patient's neurological deficit was caused by diffuse ischemia and focal infarc-

This case report represents the longest interval reported between removal of a primary renal cell carcinoma and the appearance of an intracranial metastasis. A review of the literature leads to the conclusion that palliation can be achieved for many patients by removing solitary metastatic brain tumors even if the ultimate prognosis is poor. The authors are from the Section of Neurological Surgery, Department of Surgery, St. Louis University School of Medicine.

tion of the central nervous system and that the tumor was responsible for very little of his preoperative deficit.

Discussion

The most common primary tumors giving rise to intracranial metastasis are lesions of the lung and of the breast. The lung has been reported to be the primary in 16%[2] to 65%[3] of all metastatic brain tumors. Odom found the lung to be the site of the primary in 27.5% of his 313 cases.[1] His findings of carcinoma of the breast as the source in 16.3% reflects the established incidence.

More than one half of the patients with brain tumors from the lung begin to present central nervous system symptoms within the first six months of the discovery of their primary lesion. In fact, 79% of Odom's patients with metastasizing lung lesions had discovery of their brain tumor before their primary lesion was located.[1] The reverse, obviously, was true with breast lesions; 96% had discovery of the primary before the brain lesion appeared. Further, the prognosis for patients with metastatic lung lesions is poor. Fully two thirds of the postcraniotomy patients die within the two week to six month postoperative period.

In contrast to the poor prognosis in lung and breast lesions, patients with central nervous system metastatic tumors from lesions in the genitourinary tract tend to fare better. About 50% of the patients with hypernephroma in Stortebecker's series lived beyond six months after the removal of their metastatic brain tumors.[4] Of Odom's patients with hypernephroma, 37.5% lived beyond one year. One of Odom's longest survivors (11 years) had had a hypernephroma removed. The largest group of survivors beyond two years postoperative period had hypernephroma.[1]

Cases of a long interval between location of the primary lesion and the appearance of any metastasis usually involve hypernephroma. Thirty-five per cent of patients with hypernephroma in whom no evidence of metastasis is detected at the time of nephrectomy will survive five years. The longest interval between the removal of a primary hypernephroma and the appearance of a metastatic lesion is 31 years in a patient with a lesion appearing in the nephrectomy scar reported by Kardjian.[5] Prior to our patient, the longest reported interval between the discovery of a primary renal cell carcinoma and the detection of an intracerebral metastasis was 14 years, reported by Middleton.[6] That same patient went on to live 17 years after his craniotomy for an ongoing survival of 31 years after nephrectomy.[6]

Patients with previous primary lesions of any type and in whom central nervous system symptoms develop should have thorough evaluation. Thirty-five per cent of all patients with metastatic brain tumors have solitary nodules.[1] Stortebecker reported solitary brain lesions in 79% of his patients with metastatic hypernephroma.[4] In one such case, the patient survived 14 years after the single metastatic lesion had been removed. Of the 211 cases evaluated by Odom for number of metastatic nodules, 56.4% had solitary brain lesions. Thus, palliation can be achieved for many patients by removing solitary metastatic brain tumors even if the ultimate prognosis is very poor. Simionescu found that patients with bronchogenic carcinoma metastatic to the brain survived only three months without surgery.[7]

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President

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(Please turn to page 888)

President's Message

Last month, I pointed out the great need in Missouri for all kinds of medical manpower and the reasons for the shortage of physicians. However, I neglected to list one of the greatest causes of the physician shortage in our state.

We are losing the graduates of Missouri's medical schools to other states. This is a very serious problem and one which we need to correct. Only 22% of the living graduates of our three Missouri medical schools practice in our state. Only 42% of the graduates of the Missouri University School of Medicine have located in Missouri. This situation is apparently worsening. At the same time, the Olson Report pointed out that our state is recruiting fewer physicians than in the past from schools outside of Missouri.

In a survey of other state medical associations, we found very few states actively engaged in programs to recruit physicians. The field is wide open. Much can be done.

Each member of MSMA must act as a committee of one to get acquainted with our interns, residents and medical students and follow them through their training and armed forces service. We must sell them on Missouri as a great state and a great place to practice medicine. The MSMA state office will help list these graduates so that we may continue our contacts with them.

Doyle C. McCraw, M.D.

We must create a good climate for our new physicians. Many years ago when I was looking for a place to practice, I was frequently told, "Don't come here!" There was something wrong at every place.

This is not true today. We need doctors and we must encourage and help young physicians to get started whether they choose solo practice or a small or large group. Inform the MSMA state office of your need for additional physicians. We won't promise to fill your needs, but we will certainly try.

If we all work at the task of increasing our physician population, we can do the job.

The following are necessary steps:
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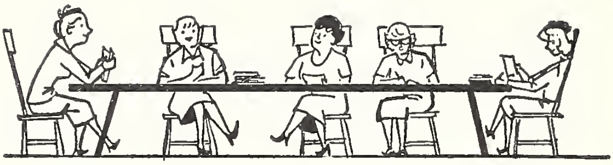
Woman's Auxiliary



As President of the Woman's Auxiliary to the MSMA, I have the privilege of visiting most of the county auxiliaries in the state. In September, I visited Buchanan, Cape Girardeau, Lincoln-St. Charles, Lafayette-Ray and Greene County Auxiliaries. Each organization represents an alert, active and vitally interested group of physician's wives who are concerned with the health and welfare of their respective communities and in the youth and their accomplishments and problems. I do wish you could get a mental picture of their total activities throughout the state.

When you read this, the Fall Conference at the Ramada Inn in Jefferson City will be a pleasant memory. We planned a great program which stressed Membership, Health Careers and Children and Youth.

Mrs. James A. Reid, President

The national and state auxiliaries are continuing the campaign against provocative violence on TV and in movies. This constant vigilance is necessary to combat the influences which we feel are harmful to our young people and to the family unit. What can you do? Dictate a letter to your secretary to be sent to policy makers in the entertainment industries. Compliment them when possible, but offer constructive criticism when necessary. Your help is needed.

If you do not have a close tie with your county or state auxiliary, you may not be aware of the fact that the AMA Auxiliary offers package programs on the following ten subjects:

"Immunization"
"Youth Health and Fitness"
"Teenage Venereal Disease"
"Mental Health of Children"
"Block Mother Plan"
"Homemaker Service"
"Drug Abuse"
"Health Careers"
"Alcohol"
"Sex Education"

These programs provide excellent tools for stimulating community understanding and action in regard to important health needs of the family and youth. They include all the information you need to make a challenging presentation to your community. If you are interested in one or all programs, please contact me.

When we county and state auxiliary members think of our programs, we realize that "nothing is real until it becomes local."

EDITORIALS

LIFE EXPECTANCY

A recently reported study claims that life expectancy during the past few years has actually decreased instead of progressively increasing as in the past. The writers imply that as much as possible has been done in the cure of infectious diseases and specifically state that new approaches such as the prevention of accidents are needed. They also warn that the possibility of world starvation is becoming increasingly probable.

While new approaches are needed, much still remains to be done in the prevention and cure of infectious diseases. Continuous search for new antibiotics is necessary even to maintain the status quo as bacteria become resistant to present antibiotics. The field of vaccines and sera has barely been touched on. The virtual eradication of poliomyelitis in a few years is illustrative of future possibilities. The new rubella vaccine potentially will much reduce birth defects and indirectly increase life expectancy. Treatment for viral diseases by drugs is virtually untouched.

Not only the expansion and improvement of existing modalities of diagnosis and treatment of malignancies is needed but newer basic approaches are necessary. The greatest avenues for increasing life expectancy lie in the prevention and in the treatment of degenerative diseases.

Much remains to be done by the medical profession. Where new approaches in increasing life expectancy and improving the lot of man are needed is in the "social sciences"—and politics is one form of "social science." Adequate work, income, food and shelter are basic necessities. The scientific and engineering know-how for the correction of air and water pollution is here. Its implementation is in the hands of various fields of "social science" and their willingness to lock horns with industry. If just a fraction of the new knowledge of the ecologists were put into practice, we would all live longer and better. While new advances in birth control and family planning are needed, present knowledge could produce vast changes for the better if not for the opposition of the church and state. Cessation of war is another obvious goal.

The medical profession has and is continuing to do more, often accompanied by extreme opposition (locally witness fluoridation), for the improvement of health and the extension of life expectancy than any other group. In the words of Vice-President Spiro Agnew: "So many opinion leaders nit-pick against the profession which, in this century, added more than 20 years to life expectancy: a profession which has virtually eliminated so many fatal, crippling and debilitating diseases in this country and around the world.

"Our medical profession has achieved this," he said, "not our politicians and not our press."

HERBERT L. WARRES, M.D., Editor
Greene County Medical Bulletin

CIGARETTE ADVERTISING

The cigarette manufacturers have decided to yield to the pressure of the informed public and the approaching laws that will curtail their activity in advertising on television. So far—so good. But, if these manufacturers are as sharp as we think they are, they will wisely spend the money now being spent for bought time to a far better advantage and on television, too.

Without going into the specific detail of how cigar makers spent a few million several years ago to get the cigar out of the mouth of every thug and gangster in the movies and in the face of bank presidents and other dignified gentlemen, it was done. We are sure you remember—perhaps you remember how it was done.

Cigarette manufacturers can now do a better job with the money they do not have to spend competitively by spending it collectively. Television performers, already puffing away every now and then, will probably find that excessive smoking "on camera" is far more enjoyable than it has ever been. We are not suggesting that there will be any traffic between cigarette manufacturers and television performers, but if TV stations do not quickly pass a rule prohibiting all on camera performers from smoking a cigarette, the future of both aforesaid parties will most likely come under a dark cloud of suspicion.

Lung cancer, emphysema and heart failure are already high prices to pay for cigarette smoking. Any hanky-panky that misleads our young nonsmokers to believe "the TV stars do it, why not me" and makes their starting the use of cigarettes more defensible should not be tolerated. Any television performer (already a smoker) should be able to forego the pleasure of that form of self destruction until his show is over. Then he DOES NOT become an example to those who should quit and, especially, those who should never start.

—St. Louis County Medical Society Bulletin

LIFE OR DEATH

Death is no stranger to the physician. It is no stranger to any person in this world. We read about it, talk about it, fight it, fear it, reject it, dwell upon it and, eventually, experience it.

The unfortunate paradox of the matter lies in the fact that though DEATH is no stranger to us —LIFE is! Life that we can hear, see, taste, smell and feel vibrating within and around us far too often remains a stranger, denied by our preoccupation with the artificialities of "civilized" society.

What are artificialities? Well, the gadgets; the push-buttons, television, stereo; the electric blankets, the electric tooth brushes, shiny new cars with over-powered engines and things like that. Yes, even the stock market—banks, borrowing and bonds —et cetera, et cetera.

Life is not THINGS. Life is PEOPLE. When the THINGS of life dominate the PEOPLE, we are in trouble. Maybe we should approach our current problems by living a little—with our families, friends, neighbors. And how about the world?

ROBERT M. MATHEWS, M.D., President
Johnson County Medical Society
The Greater Kansas City Medical Bulletin

Continuing Education Coming Events

Nov. 3-6	**Symposium—Internal Medicine** University of Kansas School of Medicine Kansas City, Kan.
Nov. 11	**Lecture-Discussion Seminar—"Sexual and Marital Problems"** (Six consecutive Tuesdays, 8 PM, no fee) St. Louis U. Department of Neurology and Psychiatry and Metropolitan College 3637 West Pine, St. Louis 63108
Nov. 12-13	**Seminar—Causes of Mental Retardation** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Nov. 19-21	**Seminar—Recent Advances in Pediatrics** Menorah Medical Center, Kansas City 64110 (AAGP credit)
Dec. 10-12	**Symposium—Gynecology and Obstetrics** University of Kansas School of Medicine Kansas City, Kan.
Dec. 10-11	**Seminar—Comprehensive View of Endocrinology and Metabolism** Menorah Medical Center, Kansas City 64110
Dec. 12-13	**The Cleft Palate Team** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Jan. 23-24	**Relationship of Rehabilitation to Disability Determination** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Feb. 4	**Conference—Office Pediatrics** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201

County Society News

FIRST DISTRICT

COUNCILOR

JOHN N. MARTIN, M.D., ST. JOSEPH

Grand River Medical Society

The Grand River Medical Society met at the Strand Hotel in Chillicothe on September 11 with members of the Woman's Auxiliary as guests at the social hour and dinner and the program which followed.

Lawrence C. Kingsland, Jr., M.D., M.P.H. was the featured speaker. His topic was "Computer Medicine." Dr. Kingsland is Associate Professor in the Department of Community Health and Medical Practice, University of Missouri School of Medicine, and project director for the Computer Fact Bank, Missouri Regional Medical Program. Those present enjoyed his interesting and informative presentation.

Joseph A. Conrad, M.D., *Secretary*

FIFTH DISTRICT

COUNCILOR

JAMES C. COPE, M.D., COLUMBIA

Cole County Medical Society

Approximately 100 persons were in attendance at the September 23 meeting of the Cole County Medical Society at Ramada Inn in Jefferson City. Guests included MSMA President Doyle C. McCraw and Mrs. McCraw of Bolivar, medical students from the area, staff members from Ellis Fischel State Cancer Hospital in Columbia and members of the MSMA staff.

MSMA President Doyle C. McCraw speaks to the 100 persons who attended the recent dinner meeting of the Cole County Medical Society. Guests included medical students from the area and staff members from Ellis Fischel State Cancer Hospital in Columbia.

Dr. McCraw, in a short talk, discussed programs of the State Medical Association, with special emphasis on physician recruitment. He urged the medical students to locate in Missouri upon completion of their medical education.

Two new members of the Society and their wives were introduced. They are Dr. and Mrs. Robert J. Hauser and Dr. and Mrs. Norman A. James.

A social hour preceded the dinner meeting.

Thomas J. Ryan, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR

WILLIAM D. BRADSHAW, M.D., CLINTON

Lafayette-Ray County Medical Society

The Lafayette-Ray County Medical Society met at Maib's Cafe in Lexington on September 9. Ten members and guests were present.

Following the dinner, the meeting was called to order by President Joe Ward of Lexington. Correspondence was read and discussed. The Society voted to continue to be a part of the Greater Kansas City Medical and Dental Directory.

A program was not scheduled for this meeting. It was announced that the election of officers will be held at the October meeting.

Wayne Boydston, M.D., *Secretary*

Pettis, Saline and Johnson County Medical Societies

Approximately 40 physicians and their wives attended the combined meeting of the Pettis, Saline and Johnson County Medical Societies at the Holiday Inn in Sedalia on September 10.

Guests at the meeting were Dr. William D. Bradshaw, Councilor from the Sixth District, and Mrs. Bradshaw; Dr. Michael Bernreiter, the guest speaker, and Mrs. Bernreiter of Kansas City; Mr. Royal O. Cooper, MSMA Field Secretary; and three physicians from Whiteman Air Force Base.

After the dinner, the Auxiliary members adjourned to another room for an interesting exhibit and talk on rare coins. Dr. Bradshaw spoke briefly to the physicians about the work the MSMA is now doing.

Dr. Thomas S. Hopkins, President of the Pettis County Medical Society, presided at the scientific program and introduced Dr. Bernreiter, a cardiologist, who gave a lecture and slide presentation on "Interesting Aspects of Practical Cardiology."

Robert C. Stockwood, M.D., *Secretary*
Pettis County Medical Society

West Central Missouri Medical Society

The West Central Missouri Medical Society held its annual athletic injuries meeting and clinic at the Country Club in Nevada on August 21. (See page 859.) In addition to the coaches from the University of Missouri and area high schools who were present, special guests included Dr. William Allen, assistant medical director, University of Missouri School of Medicine; Dr. William D. Bradshaw, Councilor for the Sixth District; and Mr. Royal O. Cooper, MSMA Field Secretary.

The business meeting was called to order by President William W. Haynie following the evening's program. Minutes of the June meeting were read and approved. There was no old business to come before the meeting. Correspondence received during the summer by the Secretary was discussed. The Treasurer made his report.

Dr. Alfred W. Ekland, chairman of the Credentials Committee, introduced the new members of the Society. The Program Committee announced that the election of officers for 1970 will be held during the October meeting in Butler.

The members voted that the Society again participate in the medical directory of the Greater Kansas City area, which is sponsored by the Jackson County Medical Society.

Dr. Bradshaw and Mr. Cooper made reports on matters of interest that will come before the Medical Society this Fall. President Haynie announced that a Nominating Committee would be appointed and requested to present their report at the October meeting.

The meeting was adjourned.

Roy W. Pearse, Jr., M.D., *Secretary*

NINTH DISTRICT

COUNCILOR

E. A. STRICKER, M.D., ST. JAMES

South Central Counties Medical Society

The South Central Counties Medical Society met at the City View Cafe in Mountain Grove on September 24. Dr. and Mrs. R. W. Denney of Mountain Grove were host and hostess for the meeting.

Dr. A. L. Walter of Sedalia (extreme right), visits with guests at the joint meeting of the Pettis, Saline and Johnson County Medical Societies. Dr. Walker has been a member of the MSMA for 48 years.

The Society was honored to have as a special guest Dr. Doyle C. McCraw, President of the MSMA, and Mrs. McCraw; Dr. E. A. Stricker, Councilor for the Ninth District, and Mrs. Stricker; and Mr. Royal O. Cooper, Field Secretary for the MSMA.

Mr. George Brown, a student from the University of Missouri School of Medicine and a preceptee of Drs. Martin Hasek and James Hasek in Mountain Grove, also was present.

Members and their wives attending the meeting were Dr. and Mrs. Martin Hasek, Dr. and Mrs. James Hasek, Dr. and Mrs. William F. Dreyer, Dr. and Mrs. Joe Wall, Dr. and Mrs. Joe Spears, Dr. and Mrs. Claude Cooper, Dr. and Mrs. M. C. Walton, Dr. and Mrs. R. H. Smith, Dr. and Mrs. M. L. Fowler, Dr. and Mrs. W. T. Morgan and Dr. and Mrs. Jack N. Wiles.

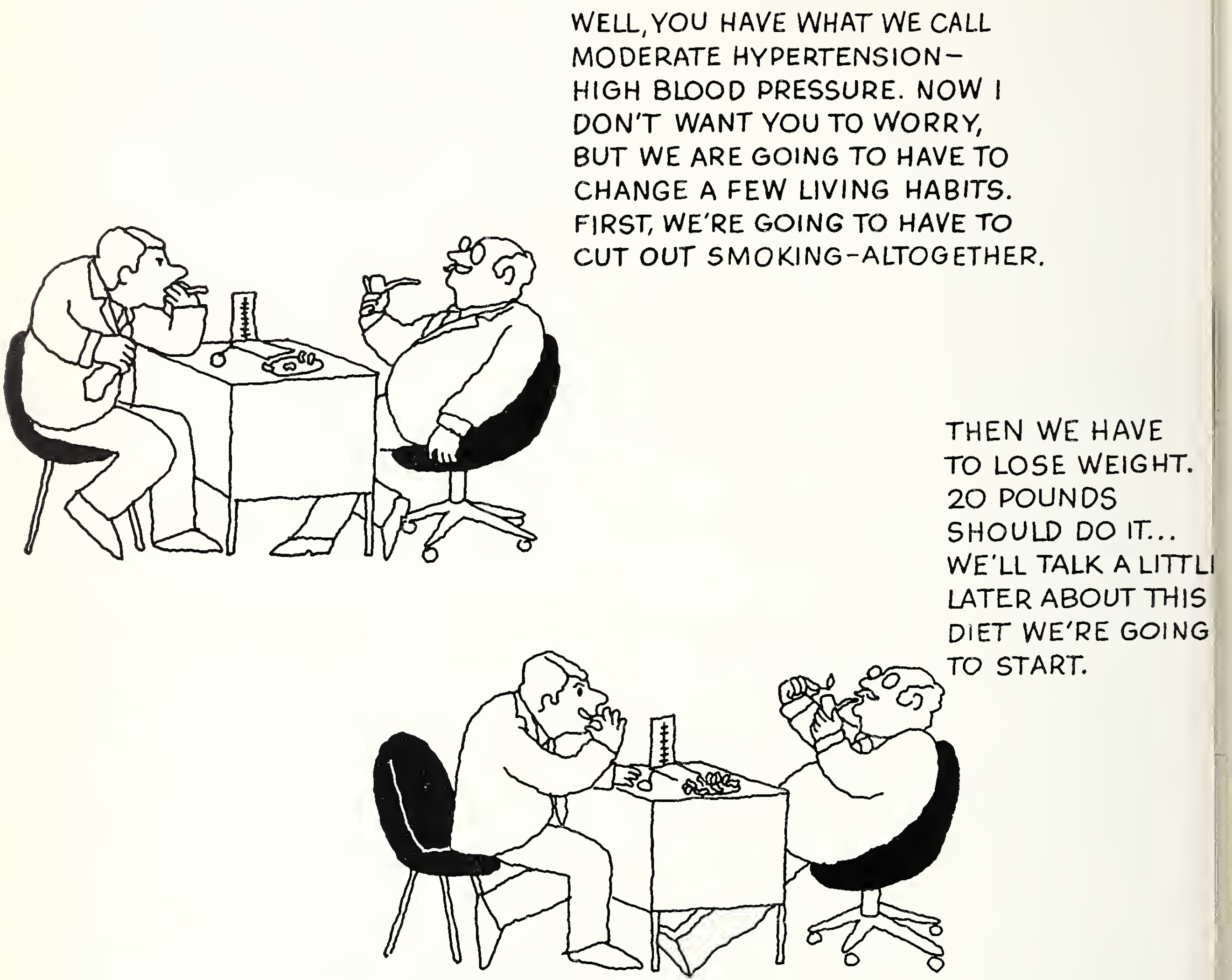
After a brief social hour and dinner, the ladies retired to the home of Mrs. Denney. The doctors remained in the dining room for an extemporaneous and "off the cuff" discussion of the activities of the Missouri State Medical Association, which was conducted by President McCraw.

Dr. McCraw stressed the importance of the Missouri State Medical Foundation and the possibility of another state medical school. Dr. Stricker made a few remarks, and Mr. Cooper discussed the importance of the county society presidents' and secretaries' attendance at the Annual Officers Conference to be held in Jefferson City on Jan. 31-Feb. 1, 1970.

After a brief business session, the meeting was adjourned.

Jack N. Wiles, M.D., *Secretary*

The Apprehensive Hypertensive


WELL, YOU HAVE WHAT WE CALL MODERATE HYPERTENSION— HIGH BLOOD PRESSURE. NOW I DON'T WANT YOU TO WORRY, BUT WE ARE GOING TO HAVE TO CHANGE A FEW LIVING HABITS. FIRST, WE'RE GOING TO HAVE TO CUT OUT SMOKING-ALTOGETHER.
THEN WE HAVE TO LOSE WEIGHT. 20 POUNDS SHOULD DO IT... WE'LL TALK A LITTL LATER ABOUT THIS DIET WE'RE GOING TO START.

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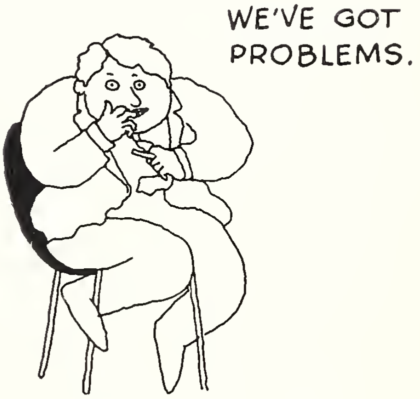
other adverse reactions which have occurred in the adult. Increa
respiratory secretions, nasal congestion, cyanosis and anorexia r
occur in infants born to reserpine-treated mothers. *Precautions:* Anti
pertensive therapy with this drug should always be initiated cautio
in postsympathectomy patients and in patients receiving ganglic
blocking agents, other potent antihypertensive drugs, or curare. Red
dosage of concomitant antihypertensive agents by at least one-half.
avoid hypotension during surgery, discontinue therapy with this ag
two weeks prior to elective surgical procedures. In emergency surg
use, if needed, anticholinergic or adrenergic drugs or other suppor
measures as indicated. Because of the possibility of progression
renal damage, periodic kidney function tests are indicated. Disconti
if the BUN rises or liver dysfunction is aggravated. Hepatic coma
be precipitated. Electrolyte imbalance, sodium and/or potassium
pletion may occur. If potassium depletion should occur during thera
the drug should be discontinued and potassium supplements giv
provided the patient does not have marked oliguria. Take particular c
in cirrhosis or severe ischemic heart disease and in patients receiv

WE'VE GOT TO GET PLENTY OF REST AND TRY TO AVOID SITUATIONS THAT MAKE US ANXIOUS OR TENSE. AND WE'LL TAKE MEDICINE TO LOWER OUR BLOOD PRESSURE AND CALM US DOWN.


WE'VE GOT PROBLEMS.

and allay anxiety in hypertension

rticosteroids, ACTH, or digitalis. Severe salt restriction is not recom-
nded. Use cautiously in patients with ulcerative colitis or gallstones
iliary colic may be precipitated). Bronchial asthma may occur in
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lly when used with digitalis), drowsiness, dull sensorium, hypergly-
mia and glycosuria, hyperuricemia, lassitude, restlessness, transient
opia, impotence or dysuria, orthostatic hypotension which may be
tentiated when chlorthalidone is combined with alcohol, barbiturates
narcotics, leukopenia, aplastic anemia, skin rashes, thrombocyto-
nia, agranulocytosis, nasal stuffiness, increased gastric secretions,
htmare, purpura, urticaria, ecchymosis, weakness, uveitis, optic
ophy and glaucoma, and pruritus. Eruptions and/or flushing of the
n, a reversible paralysis agitans-like syndrome, blurred vision, con-
ctival injection, increased susceptibility to colds, dyspnea, weight
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New Members

K. Clair Anderson, M.D., 6306 Morningside Dr., Kansas City, has become a member of Jackson County Medical Society. Dr. Anderson is a native of Fremont, Ia., received his preliminary education at Simpson College and his M.D. degree at the University of Iowa in 1962. He specializes in orthopedic surgery.

J. E. Block, M.D., 1609 Limit, Sedalia, has become a member of Pettis County Medical Society. Dr. Block is a native of Philadelphia, Pa., received his preliminary education at Muhlenberg College and his M.D. degree at Seton Hall College of Medicine in 1964. He specializes in internal medicine.

Benje Boonshaft, M.D., 7171 Delmar, St. Louis, has become a member of St. Louis County Medical Society. Dr. Boonshaft is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1961. He specializes in internal medicine.

Gregory M. Borsuck, M.D., 535 Blue Ridge Tower, Kansas City, has become a member of Jackson County Medical Society. Dr. Borsuck is a native of Newark, N. J., received his preliminary education at Duke University and his M.D. degree at the New Jersey School of Medicine in 1962. He specializes in dermatology.

Patrick L. Butler, M.D., 219 Sergent, Joplin, has become a member of Jasper County Medical Society. Dr. Butler is a native of Peoria, Ill., received his preliminary education at St. Joseph College and his M.D. degree at St. Louis University in 1962. He specializes in ophthalmology.

Bill O'Malley

"You know, dear, you look very good. It's just that the bandages and cast make you look awful!"

Robert A. Cohen, M.D., 601 E. 63rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Cohen is a native of Kansas City, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1964. He specializes in pediatrics.

Charles S. Davis, M.D., 301 Medical Arts Bldg., Joplin, has become a member of Jasper County Medical Society. Dr. Davis is a native of Galena, Kan., received his preliminary education at Kansas State University and his M.D. degree at Kansas University in 1948. He specializes in internal medicine.

Romualdo V. DeLeon, M.D., 2601 Whittier, St. Louis, has become a member of St. Louis County Medical Society. Dr. DeLeon is a native of Batangas Calaca, Philippine Islands, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1957. He specializes in internal medicine.

Charles L. Empson, M.D., 9406 E. 63rd, Kansas City, has become a member of Jackson County Medical Society. Dr. Empson is a native of Winona, Kan., received his preliminary education at Wichita State University and his M.D. degree at the University of Kansas in 1968. He is in general practice.

Raul Huet, M.D., 2625 W. Paseo, Kansas City, has become a member of Jackson County Medical Society. Dr. Huet is a native of Mexico City, Mexico, received his preliminary education at the University of Mexico and his M.D. degree at the University of Mexico in 1950. He specializes in psychiatry.

John H. Kiernan, M.D., Meyer Blvd. & Prospect, Kansas City, has become a member of Jackson County Medical Society. Dr. Kiernan is a native of St. Joseph, received his preliminary education at Rockhurst College and his M.D. degree at the University of Missouri in 1965. He is in general practice.

Robert J. King, M.D., 1502 E. Broadway, Columbia, has become a member of Boone County Medical Society. Dr. King is a native of Detroit, Mich., received his preliminary education at Calvin College and his M.D. degree at

Wayne State University in 1962. He specializes in urology.

Daniel M. Lundblad, M.D., 2601 Whittier, St. Louis, has become a member of St. Louis County Medical Society. Dr. Lundblad is a native of St. Louis, received his preliminary education at the University of Pennsylvania and his M.D. degree at Hahnemann College in 1963. He specializes in pathology.

Larry G. Markel, M.D., 4320 Wornall Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Markel is a native of Great Bend, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1964. He specializes in urology.

Oliver G. Orth, M.D., 201 W. Broadway, Columbia, has become a member of Boone County Medical Society. Dr. Orth is a native of St. Louis, received his preliminary education at St. Mary's College and his M.D. degree at St. Louis University in 1963. He specializes in neurosurgery.

Patrick C. Reddin, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Reddin is a native of Dubuque, Ia., received his preliminary education at Loras College and his M.D. degree at the University of Iowa in 1955. He specializes in obstetrics and gynecology.

Mitchell J. Rosenholtz, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Rosenholtz is a native of St. Paul, Minn., received his preliminary education at Harvard University and his M.D. degree at the University of Minnesota in 1956. He specializes in anatomical pathology.

Charles A. Waltz, M.D., 534 Blue Ridge Tower, Kansas City, has become a member of Jackson County Medical Society. Dr. Waltz is a native of Massillon, Ohio, received his preliminary education at Ohio University and his M.D. degree at Ohio University in 1962. He is in general surgery.

Nathaniel Winer, M.D., 4549 Rockhill Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Winer is a native of Beverly, Mass., received his preliminary education at Harvard University and his M.D. degree at New York University in 1959. He specializes in internal medicine.

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THE 112th ANNUAL SESSION

Missouri State Medical Association

April 2-5, 1970

MUEHLEBACH HOTEL, KANSAS CITY

John H. Owens, M.D., Bothwell Memorial Hospital, Sedalia, has become a member of Pettis County Medical Society. Dr. Owens is a native of Independence, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1965. He specializes in pathology.

John R. Post, M.D., 7620 W. Bruno, St. Louis, has become a member of St. Louis Medical Society. Dr. Post is a native of St. Louis, received his preliminary education at Quincy College and his M.D. degree at St. Louis University in 1966. He is in residency.

Jerry B. Wurster, M.D., 4320 Wornall Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Wurster is a native of Smith Center, Kan., received his preliminary education at Kansas State University and his M.D. degree at the University of Kansas in 1964. He specializes in ophthalmology.

Nestor R. Zenarosa, M.D., 2601 Whittier, St. Louis, has become a member of St. Louis County Medical Society. Dr. Zenarosa is a native of the Philippine Islands, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1957. He specializes in internal medicine.

In Memoriam

Fleming, Royall B., M.D., Kansas City, a graduate of Howard University, 1930; member of Jackson County Medical Society; aged 67; died Aug. 29, 1969.

Goodman, Leroy, M.D., Shawnee Mission, Kan., a graduate of Harvard University, 1927; member of Jackson County Medical Society; aged 68; died Sept. 6, 1969.

Shires, Edward B., M.D., Kansas City, a graduate of Albany Medical College, 1940; member of Jackson County Medical Society; aged 55; died Sept. 10, 1969.

Bull, Ben M., M.D., Ironton, a graduate of Washington University, 1923; member of Mineral Area County Medical Society; aged 71; died Sept. 14, 1969.

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Do physicians generally locate in the state in which they graduated? What are the activities and specialty distribution of a particular medical school's graduates?

Answers to these and other questions are found in *Medical School Alumni,* 1967, the latest in a series of statistical summaries prepared by the AMA's Department of Survey Research.

The book contains a wealth of information about medical schools and their products. A major portion contains tabulations showing the distribution of graduates of each medical school by specialty, field of professional activity, type of practice organization, geographic location and other categories.

Copies are available from the AMA Order Handling Unit at $4.00 each.

* * *

The 13th in the popular series of "Timely Tips on Health and Safety" has just been released by the AMA. Entitled "Noise—The New Pollution," the new message reports on how noise assaults one's nerves as well as ears. Although noise is omnipresent in modern life, "prevention works best," such as legislation to muffle transportation vehicles, soundproofing of buildings and individual efforts to reduce noise intensity at home and at work. It also advises the reader with questions about hearing to seek advice from his family physician or an otolaryngologist.

This new "Timely Tip" on noise may be ordered in quantities of 100 for only 20¢ from the AMA Order Department. Also, the first 12 "Tips," which completed the original series, are available as a "package" of 100 of each for only $1.50.

These small flyers are ideal as envelope stuffers, for physicians' reception rooms and as "hand-outs" at fairs, school programs and in any public area with heavy traffic.

The AMA recently released its newly-published and updated *Directory of Blood Banking and Transfusion Facilities and Services.* This reference succeeds its predecessor, last published in 1965.

The directory contains data on blood banking activities available from no other source and reports on banking services and facilities in all 50 states, the District of Columbia, the Canal Zone, Guam, Puerto Rico and the Virgin Islands. This information covers inventories of whole blood and the amount of packed or sedimented red blood cells collected, transfused and otherwise supplied, as noted in the individual listings.

The Directory is the result of the answers supplied by 5,625 respondents to the survey card mailed in August, 1968, to 10,443 facilities which the AMA Committee on Blood and staff thought may have blood banking and transfusion services. Among those surveyed were members of the American Association of Blood Banks, American Hospital Association, American National Red Cross and the American Osteopathic Hospital Association.

The 70-page Directory may be ordered, at $1.50 per copy, from the AMA Department of Environmental Health in Chicago.

MISSOURI MEDICINE *welcomes comments and contributions from its readers. Correspondence should be addressed to the Editor with the understanding that such correspondence may be rejected or published (in entirety or in part) at the discretion of the Editor. With the exception of scientific papers, correspondence usually cannot be acknowledged or returned.*

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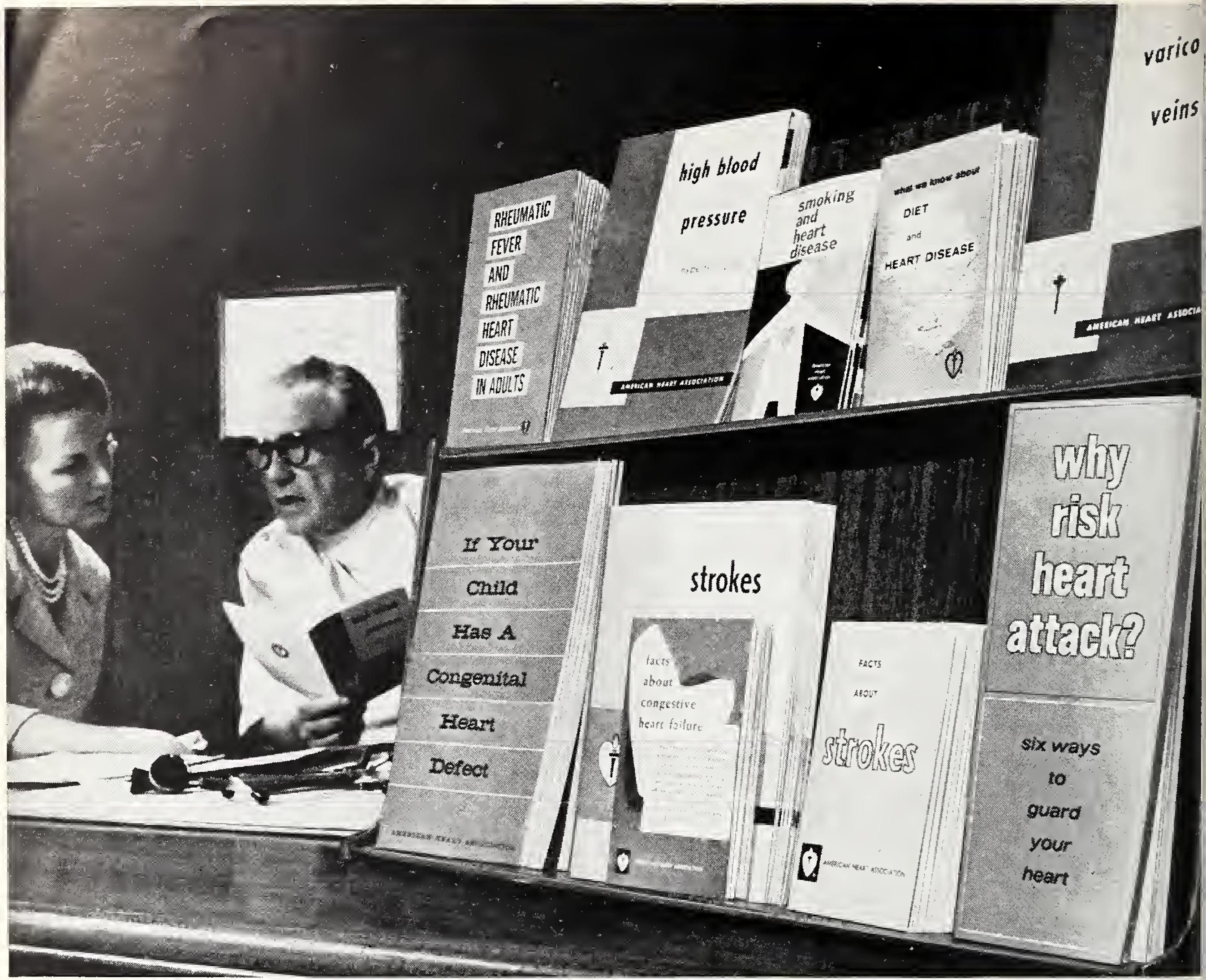
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Produced under the guidance of leading cardiovascular specialists, these pamphlets deal with such subjects as heart attack, stroke, hypertension, rheumatic fever, congestive failure, inborn heart defects, varicose veins and other disorders. There are also pamphlets advising on risk factors related to heart attack, including persuasive arguments against cigarette smoking, and a fat-controlled, low-cholesterol diet plan for the general public. Booklets on therapeutic sodium-restricted or cholesterol-lowering diets are also available on a physician's prescription only.

Ask your local Heart Association for a catalogue listing all these free materials and order a supply.

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Contributed by the Publisher

Council Report

(Continued from page 854-A)

Reports of the Council on Medical Education dealt with the participation of doctors of osteopathy in AMA-approved internships and residencies. It brings the "Essentials of Approved Internship and Residencies" into conformity with AMA policy. Both reports were adopted.

One resolution would have required that AMA appointments to the Joint Commission on Accreditation of Hospitals be limited to physicians actively engaged in the private practice of medicine. The resolution was not adopted.

Resolution # 9—Participation of Doctors on Hospital Staffs in Building Programs would have had the AMA request the JCAH to suspend or withdraw the accreditation of a hospital upon proof of coercion of physicians to contribute to building funds by threat of loss of their privileges. Resolution # 9 was not adopted.

Resolution # 71 concerned unearned markups on referred laboratory work and reaffirmed statements in the Judicial Council opinion entitled, "Laboratory Services," presented to the House at the 1967 Clinical Convention. The House considered and adopted a substitute resolution.

A report of the Board of Trustees transmitted to the House of Delegates for its information the report of the management study of the Association together with comments of the Board of Trustees. It indicated that the study had been terminated.

Resolution # 18 requested the Board of Trustees to explore the feasibility of a visit to each state medical association at least once every two years by a member of the Board. A substitute resolution indicating that they visit state medical associations upon request was adopted.

Report D of the Board of Trustees was considered together with six resolutions, all relating to problems of of professional liability, liability insurance or both. The House adopted the following recommendations derived from Report D of the Board of Trustees: (1) That constituent associations seek the enactment of appropriate state legislation; (2) That constituent associations, with AMA assistance, seek cooperation of hospital associations and third party payers in exploring and developing pilot programs; (3) That workshops on malpractice insurance problems be conducted.

Resolution # 24 asked that the field staff of the Division of Public Affairs be divested of its AMPAC responsibilities. This resolution was referred to the Board of Trustees for its careful consideration and appropriate action.

Four resolutions were introduced concerning nursing and paramedical education and recruitment. These were considered together and a substitute resolution was adopted in lieu of these, resolving that the AMA reaffirm its support of all forms of nursing education; encourage the continuation of subsidies to schools of nursing; that AMA take appropriate action to increase the enrollment; and that appropriate steps be taken to encourage recruitment into the health professions.

Several resolutions were introduced regarding cigarette smoking and the advertising of cigarettes. By combining these resolutions, the House urged its members to play a major role against cigarette smoking and directed the AMA to indicate to the Congress the incongruity of the expenditure of tax dollars to promote the production and sale of tobacco and at the same time spend other tax dollars to discourage cigarette smoking.

Three resolutions were introduced regarding sex education in schools. The House adopted a substitute resolution in lieu of these three resolutions which stated that the primary responsibility for family life education is in the home, but that the AMA support in principle the inauguration by State Boards of Education or school districts voluntary family life and sex education programs at appropriate grade levels.

Two resolutions were introduced regarding Medical Charge Cards and Credit Card Payments to Physicians. The House expressed the opinion that the AMA should reaffirm the opinion of the Judicial Council regarding the "Principles to be implemented and applied as necessary by the county medical societies for the guidance of physicians" as bank and other credit card systems develop. These principles were reiterated and the resolutions referred to the Judicial Council.

The Chairman thanked and commended Dr. Benoit for his fine report on the AMA House of Delegates Actions at the New York AMA Convention.

Dr. Miller requested MSMA Legal Counsel to investigate the Sturgis Parliamentary Procedure to determine if this procedure should be adopted by MSMA.

The Chairman directed that the report of the Board of Trustees Committee on Osteopathy regarding implementation of the policy established at the Miami Clinical Convention in 1968 be referred to the Interspecialty Committee. He then directed that the Florida Resolution # 65 dealing with the subject of awarding M.D. de-

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grees to qualified osteopaths through the development of curricula on the postgraduate level be referred to the Committee on Medical Education.

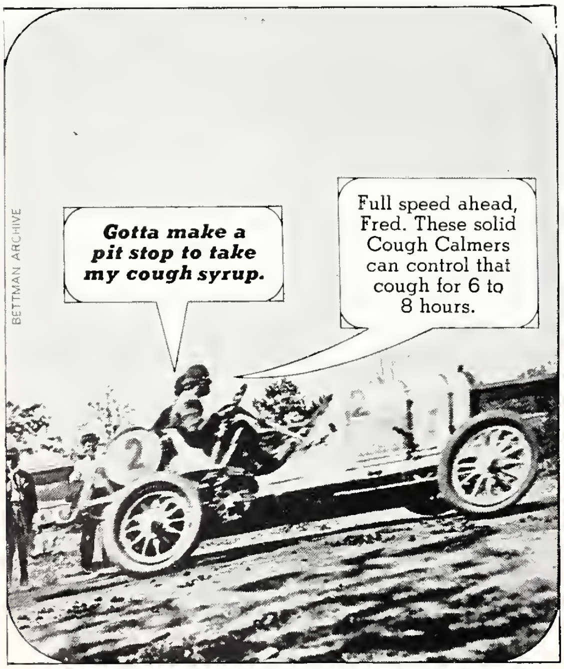
Dr. Neilson was called upon for any comments he had regarding the AMA Convention. Dr. Neilson stated that MSMA has an excellent group of physicians who serve as delegates and alternates. He reported that Dr. Benoit was one of four physicians voted on by the House for a vacancy occurring on the Council on Medical Service. He said that even though Dr. Benoit lost, it was a definite compliment for him to have been one of four considered in view of his short period of service as an AMA Delegate.

After discussion, it was decided that the Council recommend to the AMA Board of Trustees that Dr. Benoit be considered for further vacancy on the Council on Medical Service. The Council also voted to recommend to the AMA Board of Trustees that Dr. Neilson be appointed to the Council on Environmental and Public Health.

A motion was made, seconded, and passed that letters recommending Dr. Benoit for the Council on Medical Service and Dr. Neilson for the Council on Environmental and Public Health of the AMA be sent to the AMA Board of Trustees. Dr. Benoit and Dr. Neilson were requested to send their curriculum vitae to the MSMA office so they can be included in the letter to be sent to AMA. Drs. Peterson and Washburn added brief comments to the reports of Drs. Benoit and Neilson.

COLLEGE OF AMERICAN PATHOLOGISTS

Dr. Benoit stated that in 1966 the U. S. Justice Department filed a suit against the College of American Pathologists accusing the CAP of a conspiracy to monopolize the medical lab testing industry by controlling the nation's commercial laboratories, through price fixing and boycott tactics. The Justice Department charged that the CAP intended to keep all nonmembers out of the field, keep charges at artificially high levels and keep purchases at artificially low levels. The College of American Pathologists maintained that it had never engaged in any of these practices alleged by the government in its suit and maintained that the College's activities were nothing more than the effort of a professional group to regulate the professional conduct of its members by passing reasonable codes of ethics.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He said that the CAP has entered into a Consent Decree with the U. S. Department of Justice on these civil antitrust charges. The terms of the decree restrain the College from alleged price fixing and boycott agreements to keep nonmembers out of the medical laboratory testing industry.

Dr. Benoit pointed out there was a feeling that this decision of the Justice Department may have far-reaching implications in the practice of medicine and in the activities of other medical organizations. After further discussion, it was suggested that this problem be referred to the Medical-Legal Committee to study. Legal Counsel also was asked to study this matter since it may relate to the MSMA and report to the next meeting of the Council.

REPORT OF MEDICAL-LEGAL COMMITTEE

Dr. Yancey, Chairman of the Medical-Legal Committee, reported that he had attended a meeting of Trial Lawyers at Tan-Tar-A which was very enlightening.

Dr. Yancey reported that the Medical-Legal Committee met in Jefferson City on August 10 to discuss, study and plan a course of action on two resolutions adopted by the MSMA House of Delegates and referred to the Committee by the Council. The resolutions deal with professional liability insurance and pretrial screening panels for malpractice suits. He stated that the general plan of all screening panels is very similar, with the exception of New Jersey which operates by rule of the Supreme Court. They also have a committee composed of two doctors, two lawyers and a retired judge. These various plans seem to work well in their areas.

Some information was provided on new types of plans developed by the states of Utah and Florida. In Missouri, the Committee feels we are making some progress, but plans to devote more study to this matter before recommending a type of plan that may be suitable to Missouri. It was stated that the Florida type plan of insurance, which is sponsored by the medical association, seems to be working well. The cases are all reviewed carefully both from the medical and legal viewpoint and more than 50% of the Medical Association members are members of this plan. One of the features of the plan is the filing of a counter-suit against the plaintiff if the case is won. That seems to be a deterent to the filing of malpractice claims.

Dr. Yancey stated that the Committee plans a meeting soon with insurance carriers. He stated the insurance carriers, as a whole, do not favor a screening method and do not favor group insurance. The Committee wants to determine the pros and cons of a group policy. He stated that the Florida group premiums are less than bureau rates for the state, but their premiums are much higher than in Missouri.

It was suggested that Mr. Cooper maintain contact with the Florida Medical Association and obtain information on the administration and operation of the plan.

After considerable discussion, on motion of Dr. Kerr, duly seconded, it was agreed that the report of the Medical-Legal Committee be accepted and that the Committee be directed to continue its study of possible screening panel systems.

TRAINING PROGRAMS FOR D.O.'S

Dr. William Mayer, Dean of the University of Missouri School of Medicine stated there are five specialty boards which will not accept qualified D.O.'s for board certification. He said the University is now receiving applications from D.O.'s for residency training. He requested the position of MSMA on this matter.

After discussion, on motion of Dr. Matthews, duly seconded, it was agreed that the Council approve the acceptance by the teaching programs within the state qualified osteopathic residency applicants in the specialty areas which have approved Board certification for qualified osteopaths.

LETTER REGARDING MEDICARE

Dr. Mayer was asked to give an explanation regarding Medicare Intermediary Letter # 372. Dr. Mayer stated that there has been increasing concern relative to both Medicare and Medicaid payments for physician's services within teaching hospitals. He said the Social Security Administration's Intermediary Letter # 372 sets forth a very complicated method by which Part B payments can be made for services of physicians in a teaching institution. He indicated this has caused quite a furor throughout a number of teaching hospitals. He stated that the University of Missouri probably will be able to live with it and will make an attempt to define these reimbursement regulations under Part B to individual doctors and individual patients.

Dr. Miller stated that if Intermediary Letter # 372 is carried out, it would destroy the present policy now in effect in determining the reasonable charge payment.

The Chairman expressed appreciation to Dr. Mayer for his report. No action was requested, as this report was for the information of the Council.

1970 ANNUAL SESSION PROGRAM

Mr. McIntyre reported that the program for the MSMA 1970 Annual Meeting is developing satisfactorily. He stated that a large part of this program is being developed by a number of specialty groups and organizations and committees of the State Medical Association. Mr. McIntyre said that Dr. Yore, Chairman of the Program Committee, will give a more complete report to the Council in December.

LIAISON WITH OSTEOPATHS

Dr. Miller requested discussion on having a liaison committee on MSMA meet with a similar committee of the Missouri Osteopathic Association to consider mutual problems. He said that it was his understanding that the Osteopathic Association favors such a meeting. Dr. Matthews suggested that such a Liaison Committee be held to a small group with a like number from the Osteopathic Association. It was suggested that the Executive Committee of the Council meet with a like committee of the Osteopathic Association, possibly on Friday evening, December 12. A report can then be made at the Council meeting to be held on December 13-14. The staff was directed to contact the osteopathic group to determine if this is agreeable.

PEER REVIEW

The Chairman stated that before discussion of Peer Review, which is of primary concern to all the physicians, he would appreciate some clarification of the Missouri Medicaid Program and requested Mr. McIntyre to review the situation from the beginning.

Mr. McIntyre explained that the MSMA Medical Economics Contract Committee was set up by the House of Delegates at the recommendation of the Council in order to deal with third party carriers. This Committee assisted the Missouri Division of Welfare in setting up the mechanism for the payment of physicians' services under Medicaid on a usual, customary and reasonable fee basis. It was assumed that the Division of Welfare would have some physicians' billings on which the Division might request a review and recommendation by a Medical Review Committee.

In view of this, the specialty groups of the state, represented on the Medical Economics Contract Committee, appointed review committees. The names of physicians on these committees were given to the Division of Welfare, so that the Division might refer cases that seemingly needed review by specialty peers. There has been some feeling that the review committees have not been used as much as they might be for the benefit of the entire program. He said that, in addition, it seems that some physicians may have a misunderstanding of the Medicaid payment method in Missouri.

Mr. McIntyre reported that a Subcommittee of the Medical Economics Contract Committee is to meet soon with representatives of the Missouri Division of Welfare to discuss some of these problems. The Subcommittee then will report its findings and recommendations to the Medical Economics Contract Committee. Following this, a report to the Council on the entire situation will be given. Following Mr. McIntyre's remarks, there was considerable discussion of the overall problem of peer review. The Chairman terminated the discussion by pointing out that the Council should wait for a full report from the Medical Economics Contract Committee before taking further action on this matter.

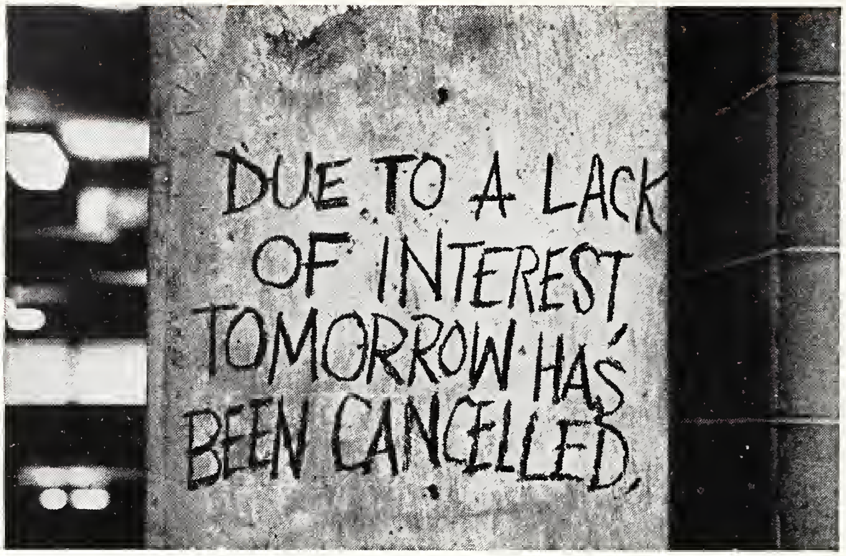
LONG-RANGE PLANNING

Dr. Miller discussed greater use of the Interspecialty Committee in conformity with the plan which was submitted to the Council last year by the Long-Range Planning Committee. He directed that the plan again be submitted to the Interspecialty Committee for further consideration and recommendations to the Council.

Dr. Miller, on behalf of the Council, thanked Dr. and Mrs. Joseph Fisher for their gracious hospitality extended to the Council and others on Friday and Saturday.

It was decided that the next Council meeting will be held at the new Downtown Holiday Inn, Jefferson City, December 13-14, 1969. The Chairman suggested inviting the Deans of the Missouri Medical Schools to Council Meetings. He pointed out that this would be of mutual benefit. After discussion, on motion of Dr. Hansbrough, duly seconded, it was agreed that an invitation be extended to the deans of the three medical schools and to Dr. Noback, the Assoeiate Dean of the University of Missouri School of Medicine at Kansas City.

On motion, the meeting adjourned at 12:00 noon.



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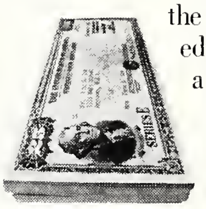

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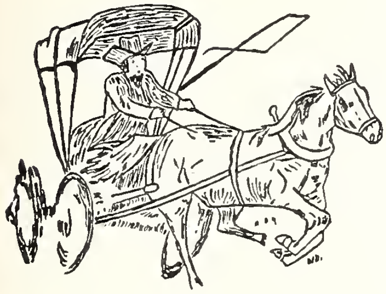

FORTY YEARS AGO

The 22nd Annual meeting of the Missouri Tuberculosis Association held in Jefferson City on September 26-27 probably was one of the most successful in its history. The most outstanding progress in dealing with chronic pulmonary tuberculosis in recent years has been along surgical lines aimed at collapse of the diseased part of the lung. Without a doubt, one of the most outstanding advocates of the surgical treatment of chronic ulcerative pulmonary tuberculosis is Dr. Evarts Graham, St. Louis, professor of surgery at Washington University School of Medicine.

When the Southern Medical Association, founded in 1906, began holding its annual conventions, the city of Miami, yet in its non-age, numbered 500 in population. During this period of scarcely a generation, Miami has metamorphosed, emerged from its chrysalis on Biscayne Bay and now enjoys the title, "Florida's Metropolis," with a year 'round population of 150,000.

The physicians from Butler, Dunklin, Pemiscot, Scott and Stoddard counties held a meeting in Poplar Bluff on October 10. This is a quarterly gathering and the session was presided over by Dr. J. Lee Harwell, Poplar Bluff, who also acted as toastmaster. Mayor B. K. Flanery gave the address of welcome, to which Dr. J. D. Van Cleve, Malden, responded.

Philip D. Wilson, M.D., Boston, spoke on "The Modern Treatment of Fractures." The massage and mobilization of treating fractures was developed by Lucas Championniere approximately 40 to 50 years ago in an attempt to remedy conditions resulting from the extreme use of immobilization in fracture treatment at that time. Championniere said that healing of the fracture was only a means to an end and that the primary goal was restoration of function. According to his view, it was much better to have a crooked limb with flexible joints and useful function than a straight limb with stiff joints. He advocated massage and early motion in the treatment of fractures and obtained results that could not be duplicated by the orthodox methods of treatment of that day.

TWENTY-FIVE YEARS AGO

With the naming of the Board of Trustees, it is expected that the plan for medical and surgical care inaugurated by the MSMA will soon be underway. Board members named to date, in addition to the ten elected Councilors, are as follows: Drs. Carl F. Vohs, Robert Mueller, E. C. Ernst, Raymond O. Muether, Llewellyn Sale, Maurice J. Lonsway and Oliver Abel, St. Louis. The lay trustees from the various districts have not been appointed as yet.

Missouri has been signally honored with two St. Louis men and a former St. Louis physician receiving Nobel Prizes. Dr. Joseph Erlanger, Director of the Physiology Department at Washington University School of Medicine, and Dr. Herbert Spencer Gasser, former Professor of Pharmacology at Washington University and now Director of Rockefeller Institute in New York, were recipients of the 1944 awards. Dr. Edward A. Doisy, Professor of Biochemistry at St. Louis University School of Medicine, shared the 1943 award, made after a year's delay, with Dr. Henrick Dam, Copenhagen, scientist now in Rochester, N. Y. The work of Drs. Erlanger and Gasser was on the function of individual nerves, in the field of electrophysiology of nerves. They used the cathode ray oscillograph and showed that the speed of conduction is correlated with the size of the axon and the greater the diameter of the whole axon and the greater the speed of conduction. They discovered that the various strands in a bundle of nerves differ in the impulses they transmit. The 1943 award made to Drs. Doisy and Dam was for their fundamental investigation on the chemical nature of Vitamin K.

Vitamin K was discovered and named in 1935 by Dr. Dam after he observed that in newly hatched chicks a fatal hemorrhagic diathesis could be cured or prevented by the administration of a nonsaponifiable nonsterol fraction of hog liver or alfalfa. Later, it was observed that the delayed clotting time of the blood was due to a low prothrombin content. Dr. Doisy showed that there are at least two naturally occurring substances which have similar physiologic properties.

Dr. Carl V. Moore, St. Louis, has been appointed to the Army Epidemiological Board.—Drs. Howard B. Goodrich of Hannibal and Louis H. Jorstand of St. Louis appeared on the program of a district training school conducted by the Field Army of the American Cancer Society in Hannibal on October 18-19.

The second War-Time Graduate Medical Meeting was held at O'Reilly General Hospital in Springfield on October 27. The meeting was held in cooperation with the Regional Committee War Time Graduate Medical Meetings. Civilian physicians of the MSMA Eighth and ninth Councilor Districts were guests.

TEN YEARS AGO

Population in Missouri increased 285,647 or 7.2% in the eight-year period from 1950 to 1958, according to a report by the Missouri Division of Employment Security on estimates of the 1958 population. The estimated population in 1958 was 4,240,300.

The State Board of Registration for the Healing Arts became effective on August 29, taking the place of the former State Board of Medical Examiners and the board licensing osteopathic physicians and surgeons. The new Board will license both medical and osteopathic physicians. The Governor made his appointments to the new State Board on September 4. The members are Walter S. Sewell, M.D., Springfield; D. Elliott O'Reilly, M.D., St. Louis; Ralph Perry, M.D., Kansas City; H. O. Loyd, M.D., Jefferson City; Richard A. Michael, D.O., Jefferson City; and R. W. Matheny, D.O., Chillicothe.

The Cape Girardeau Southeast Missourian and the *Sikeston Standard* carried articles about Thomas C. McClure, M.D. of Sikeston on his completion of 40 years in the practice of medicine.

Gov. James T. Blair recently appointed Carl M. Peterson, M.D., Kansas City, as a member of the Board of Curators at Lincoln University.

A new sign has appeared along the highways in Missouri. It reads: "$25 to $500 fine for littering highways." The "litterbug" law was passed by the recent legislature and became active on August 29.

Dr. Ian Murchie Thompson has been appointed associate professor of surgery (urology) at the University of Missouri as of September 1. Dr. Thompson received his A.B. degree in 1943 from Columbia University and his M.D. in 1947 from New York Medical College. He has been professor of surgery at the University of Michigan School of Medicine in Ann Arbor.—Dr. George L. Curran has been appointed associate professor of internal medicine at the St. Louis University School of Medicine. He formerly was associated with the University of Kansas School of Medicine where he was associate professor of medicine and gerontology.

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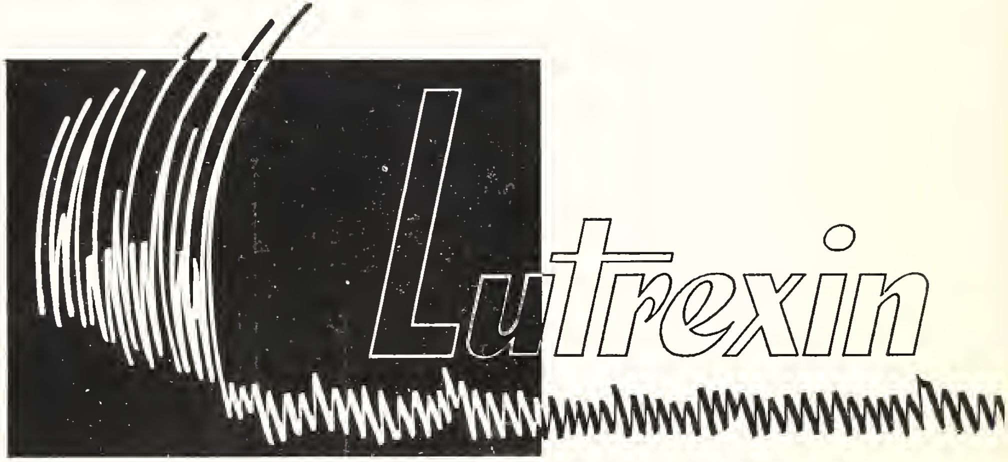

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Missouri Medicine

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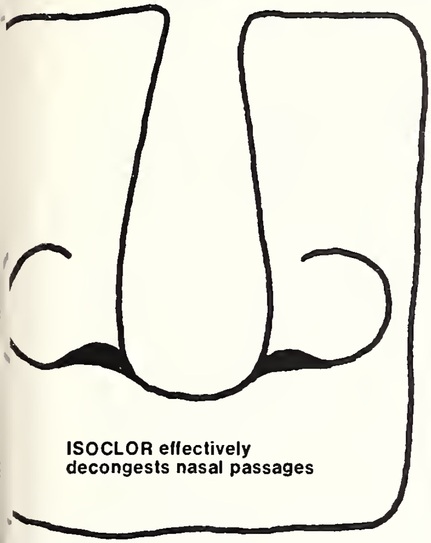

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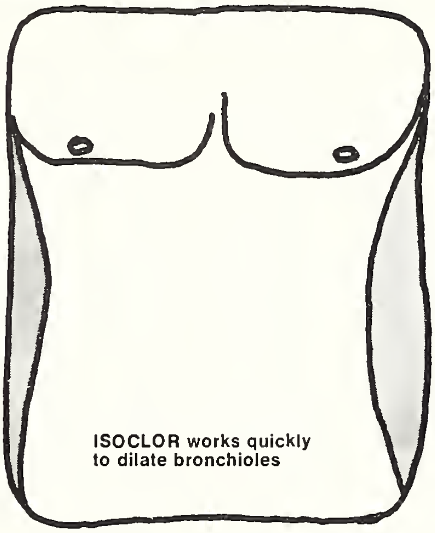

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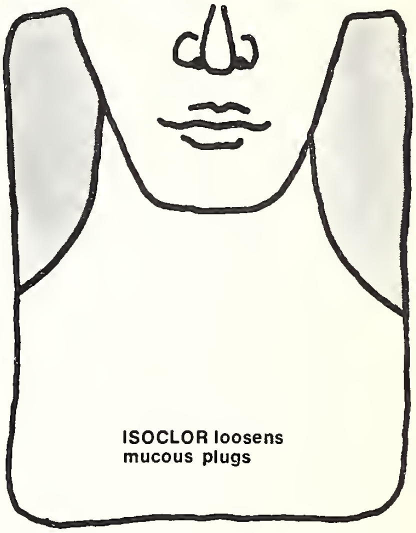

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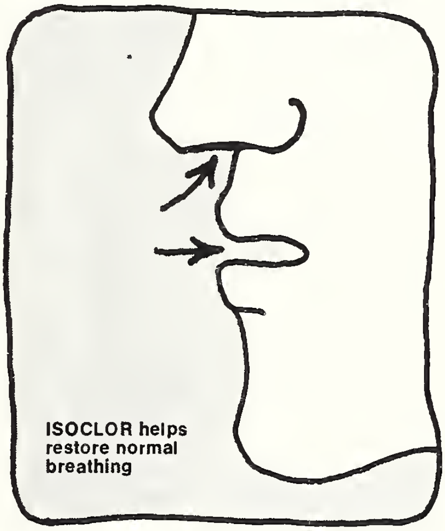

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Special Article

The Physician's Obligation to the Development of Managerial Skills in Health Care Facilities

JOHN S. SPRATT, JR., M.D., *Columbia*

In Maimonides' interpretation of the first aphorism of Hippocrates, it is clearly evident that the physician has always had managerial responsibility.[1] Medicine has always absorbed new sciences relevant to its goals, but modern management science itself has been late in permeating the medical field when compared to other current human-technological enterprises. Most physicians have learned management science sketchily through necessity, through accidental on-the-job association with good managers or through the application of a few management techniques acquired from a consultant. **Physicians as a group have not utilized established management techniques to discharge their medical responsibilities to society or to individual patients as effectively as might be possible.**

This paper considers the extent to which physicians might enhance their managerial skills and the managerial skills of their associates with existing resources. The categories of personnel classified as "managers" vary with the size of a health care facility. For the purposes of this report, any professional departmental head or supervisory employee below the joint conference committee level is considered a "middle manager." A member of the governing body, the chief of the medical staff and the administrator, functioning as a joint conference committee, are regarded as the typical example of top management representatives in a health care facility. They must stimulate the development of managerial skills from the institution's existing resources to carry forward the owner's objectives. The owners may be nonprofit trustees, government or proprietary agencies. The top management representatives must establish the priorities for resource utilization intended to meet the owner's objectives and supply the consumer public needs.

The goals for any management development program are to increase the basic managerial effectiveness and skills among existing personnel through policy changes and education. The objectives for management should be stated in a way amenable to quantitative assay to evaluate the need for an impact of the program.[2–4] To do this, it is desirable to decide upon parameters by which management achievement can be derived from a literary and consultative review and preliminary survey of a facility in question. All members of the health facility management team should be cognizant of the fact that education and revision of policy must begin at the top. Otherwise, frustration will be created when better management skills are introduced into an environment that has not been prepared for change. This begins with self-education in current management techniques. Management is considered in its broadest connotation and should be differentiated from basic business functions.

REVIEW OF THE LITERATURE

In reading all current management literature, one prevailing theme is detected. *Certain basic management principles exist that are applicable to any industry,* including the hospital and health care industry.[4–9] The identification of these principles and expression of them in explicit measurable form is the crux of industrial engineering and management science. Industrial engineering also pays heed to human factors and draws heavily on behavioral sciences to avoid human frustration and to achieve human satisfaction among producers. Industries and health care facilities not paying heed to these principles will not stay competitive in the future and will be continually wasteful of available resources.

These principles are slowly permeating health care facilities. However, a vast amount of experience in the beneficial effect they ultimately will have has not yet fully accumulated. For this study, references have been selected regarding the basic principles of management proven in other industries and situations are given with respect to the application of managerial knowledge within health care facilities.

The literature on management skills has become vast since Machiavelli wrote the first analysis of management by objectives with insight into human behavior.[3] During the past 50 years, an exponential increase in management literature probably has occurred. Better business methods are required to reduce costs or to insure that moneys are spent with the maximum degree of business efficiency. Management by objective is becoming a fundamental approach to any problem.[5] Such an approach results in the fusion of many objectives of individuals and institutions through education, motivation and common economic interests.[10, 11]

Basically, management philosophy has evolved along both authoritarian and behavioral channels. The behavioral approach to management has evolved more recently in dynamic, often publicly-owned, businesses dealing with large numbers of people within and without the organization.[11, 12] The labor union movement and the demands of complex technology have accelerated the introduction of better approaches to management problems. Through scientific management, an understanding has developed for the important relations of human factors to productivity. Extensive studies by behavioral scientists, sociologists, psychologists, industrial engineers and management experts have made the behavioral and participative approach to management much more systematic and effective.[12] The use of observations from the behavioral sciences seems to be particularly important in the management policies of health care facilities. Any health care facility can be classified as a highly developed *complex* social system composed of many *complexly* organized and interrelated groups of people. These newer approaches require the introduction into the managerial milieu of hospitals and other health care institutions of work-study-management techniques made more explicit by behavioral sciences and engineers and proven in industry.[8, 9, 13–18]

The physician always has had management responsibility, but he has been on the periphery of the evolution of contemporary management science which has techniques requisite to integrate people and facilities to obtain objectives through the performance of work. The broader management responsibilities of physicians in the current health care system necessitate self-education in management science and active participation in management development programs in health care facilities by physicians. The author states that health care facility management should increasingly incorporate behavioral management principles into the work environment with appropriate policy changes and institution-wide educational program in basic management methods and objectives. Dr. Spratt is Chief Surgeon, Ellis Fischel State Cancer Hospital and Director, Cancer Research Center.

The process of management development in any business has certain characteristics in common. The rigid professionalism in the health care industry makes management development somewhat more difficult, but certainly not impossible.[2, 7, 19, 20] Top management of any health care facility must accept the fact that the cost of such a development program is equivalent to a beneficial investment in "human capital."[15–17, 19, 21] The measurable variables that affect the development include (1) the manager's ability to learn, (2) the attitudes and skills of managers, (3) the immediate associates whose attitudes are affected by informal expectations, precedents and tradition and (4) the formal authority system which may bend slowly to accommodate newer management concepts. To be effective, development plans must take into account many factors in the planning stage of a managerial development program so that barriers are anticipated and circumvented or changed with the least friction in the final plan. These parameters which define goals of proposed managerial development must be stated in a way that can be quantified by surveys before and after changes are introduced.[2, 7, 17, 20, 22–26]

The management survey must provide good data on the existing management personnel—their educational background, job experience, continuing education, chances for advancement, rate of retirement and personnel deficits in the existing organizational structure.[2, 6] These data are needed to define the existing and potential management needs of the facility. The development program, to be realistic, must be oriented toward these needs. Where possible, the program should channel and develop individuals to meet future needs based on skill and leadership requirements created by the health care facility mission and objectives. The ideal conditions for the development of managers in business, as stated by House,[23] are adaptable to medical administrative environments, as follows:

Ideal Conditions for Development of Managers:

1. Managers at all levels in the organization understand the overall objectives of the business.
2. The basic principles, intentions, values, assumptions and beliefs of top management and each manager's superior are communicated and understood.
3. The particular functions or activities of each member of the organization are clearly understood by that member and by those with whom he deals.
4. Responsibility and authority have been delegated to the extent that each manager is challenged by his responsibilities and has the opportunity to make decisions and mistakes and to profit from these mistakes through guidance from his superior.
5. Control and accountability have been established so that each manager has adequate information and guidance for periodical review of both his own and his subordinates' performances.
6. Current managerial practices do not conflict with the intent or prescriptions of the management development program.
7. Managers are willing to make the necessary commitment to change, to coach their subordinates and to learn new skills themselves.
8. The informal organization and the personal beliefs and attitudes of nonmanagerial employees do not conflict with the objectives of the development effort.
9. Top management has the confidence of the members of the organization, and it is viewed as a good place to be employed.
10. The members of the organization are not experiencing anxieties resulting from such factors as punitive leadership practices, role conflict, role ambiguity or excessive job pressures.

The degree to which actual conditions vary from the above determines the degree of need for environmental change as a part of the development effort.

To analyze a health care facility's management environment, it is necessary to relate the manpower data derived from the survey of personnel backgrounds to the published policy structure, currently established management practices, formally delegated authority within the institution, informal authority structure, formal organization structure and the available measurements of performance and quality.[24, 25] Efforts to measure performance and quality emphasize the need for an industrial engineer as a consultant since this is exactly what he is trained to do. Most health care facilities have never had the benefit of layout planning of work effort, time motion studies of individual employee performance, quality checks on the performance of housekeeping personnel and a variety of other important analyses. The engineer needs to review the operation from top to bottom and all the personnel in it. He can make a vast number of suggestions to the management regarding changes that need to be made and management skills that need to be taught in order to make the institution run more efficiently.[6, 14]

The industrial engineer, as an expert in conserving human energy, must understand the behavioral interrelations of managers, people and work. He must appreciate the importance of human factors.[6, 7, 12, 14, 27] Human engineering combines the principles of making a human being a more efficient worker while keeping him strongly motivated and free of distractions and frustrations.

The entry into the medical environment of an engineer or any other consultant must be prefaced by an educational program. The program reassures professional staff, employees and supervisors that any changes recommended by the engineer and accepted by management would be preceded by an educational program. The purpose is to upgrade and improve the employees and to eliminate purposeless work and drudgery. It intends to make employees more productive. The institution's policy and procedure manual and the attitudes of the owners, the joint conference committee, the professional and supervisory staffs will have to be updated to accommodate the accepted ideas of the engineer or other managerial consultants.

To avoid misunderstanding, the educational program of a consultant should precede any action with a statement of goals. He assures the

(Continued on page 965)

AMA Public Affairs Director On Program For Officer's Conference

Joe Miller

The Director of the American Medical Association's Public Affairs Division will be a participant in the Third Annual County Society Officer's Conference of the Missouri State Medical Association on Saturday, January 31 and Sunday, February 1, 1970, at the Ramada Inn, Jefferson City.

Mr. Joe Miller, former executive director of the American Medical Political Action Committee (AMPAC) and currently the director of the AMA Public Affairs Division, will speak on Saturday afternoon and then lead a discussion group on Sunday morning.

Former AMPAC Director

Mr. Miller headed the AMPAC operation from its inception in 1961 until 1968 and was responsible for the development and direction of programs which allowed a bipartisan group of physicians, physicians' wives and others to participate actively in the affairs of their government. Prior to his return to AMA, Mr. Miller had seen AMPAC grow to the point where it had become the nation's second largest contributor to Congressional campaigns.

Dr. Walter Gunn, chairman of MSMA's Public Service Committee which sponsors the conference, reminds that all members of the MSMA are invited to attend the two-day meeting. He did urge that all who plan to attend either fill out the registration slip on the back of this page or write the Association office for a program and registration blank.

List Other Speakers

Speakers already announced for the program include United States Senator Thomas F. Eagleton, State Senator Albert Spradling, Jr., and State Representative William Phelps. Senator Eagleton will be the banquet speaker Saturday night. Both Senator Spradling and Representative Phelps will be on the Saturday afternoon program.

A number of leaders of the Missouri State Medical Association will also participate on the Officer's Conference Program including President Dr. Doyle C. McCraw and President-elect Dr. Joseph Fisher.

Others who will have a part in the program include Dr. Gunn; senior AMA delegate Dr. Arthur W. Neilson; Mineral Area County Medical Society Secretary Dr. Charles W. Chastain; Dr. John I. Matthews, chairman of the MSMA Legislative Matters Committee; and Dr. Robert W. Kelley, member of the Governor's Advisory Council on Comprehensive Health Planning and chairman of the MSMA's CHP Committee as well as MSMA Executive Secretary, Raymond McIntyre.

Basketball Theme Planned

The 1970 meeting has as its theme "Tip-Off Conference" and basketball terms and nicknames are used in the program which urges members of the MSMA to get the Tip-Off on medicine's positive programs by attending the two-day meeting.

Copies of the program are being mailed to presidents and secretaries of all county medical societies. Others will be mailed programs on request. Room reservations are to be made directly with Ramada Inn, Jefferson City.

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lan Program
n Abortion At
nnual Meet

With the subject of abortion
d abortion laws much in the
ews today, the Missouri State
edical Association has sched-
ed a program on this topic for
aturday afternoon, April 4,
70, during the 112th Annual
ession at the Muehlebach Ho-
l, Kansas City.

The program, scheduled from
30 p.m. until 4 p.m. Saturday
ill feature Dr. Keith P. Rus-
ll, clinical professor of Obstet-
s and Gynecology at the Uni-
rsity of Southern California
hool of Medicine.

Dr. Russell is also chairman
the Committee on Maternal
elfare and Child Care of the
alifornia State Medical Associ-
ion.

A second participant in the
ogram on abortion will be

(Continued on back of page)

MSMA
News

Carter Sees Medicaid Fund Shortage

Money appropriated for the operation of Medicaid (Title 19) in Missouri will not cover the last two months of the current fiscal year which ends on June 30, 1970, Missouri Director of Welfare Proctor N. Carter has told the state's news media.

Mr. Carter said that the original budget request of the Division of Welfare for medical care for the current fiscal year totaled $60,175,000 (State and Federal Funds), and that $50,809,000 (State and Federal Funds) was appropriated by the General Assembly.

Mr. Carter pointed out that the amount appropriated for the program this year is $3.6 million less than the $54,442,000 expended for the program in the last fiscal year.

According to the Director of Welfare: "At the current rate of monthly expenditures, the appropriation will be completely exhausted at the end of April, 1970, with two months remaining in the fiscal year. Mr. Carter estimates that $4½ million in additional funds will be needed from State money to carry the program on the present basis until the end of the fiscal year.

Not only was the State appropriation insufficient, Mr. Carter points out, but the Federal government's participation in the program was reduced on July 1, 1969, from 74 per cent to 58 per cent. This meant a loss in Federal money between the present year and the last fiscal year of $8,400,000.

Ends Charitable Immunity

The Missouri Supreme Court has abandoned the doctrine that Missouri charitable institutions such as hospitals are immune from liability for the acts of their agents and employes.

Annual Meeting (continued)

Rabbi William B. Silverman from Congregation B'nai Jehudah of Kansas City. A third participant will be announced later.

The program on abortion is being sponsored and arranged by Missouri OB-GYN Society and the MSMA Committee on Medicine and Religion.

Dr. George J. L. Wulff, Jr., St. Louis, President of the Missouri OB-GYN Society, is handling arrangements for his organization while Dr. Troy Morgan, Albany, chairman of the Medicine and Religion Committee, is making arrangements for his committee.

Dr. Russell of California will also participate in the Friday morning, April 3, program at the Annual Session when he will speak on the subject of "Endotoxic Shock" at an 11 a.m. session sponsored by the Missouri State Medical Association's Committee on Maternal Welfare. Dr. William See, committee chairman, is making arrangements for this program.

The 112th Annual Session opens at 1:30 p.m., Thursday, April 2 with a meeting of th MSMA House of Delegates an concludes after a meeting of th House on Sunday, April 5.

Dr. Neilson Is Named On AMA Council

Dr. Arthur W. Neilson

Dr. Arthur W. Neilson of S Louis has been named as a men ber of the American Medical A sociation's Council on Enviror mental and Public Health fc 1970.

Dr. Neilson, Missouri's senic delegate to the American Med cal Association, is chairman the Missouri State Medical Ass ciation's Committee on Enviror mental Health and is an actis participant in the growing cam paign against all types of po lution.

The Council's membership appointed by the Board of Tru tees of the American Medic Association and all terms ru for one year with a maximu length of service of ten years.

Fill in this form to attend the
County Society Officer's
Conference
Jan. 31, Feb. 1, 1970

Mail to:
Missouri State Medical Assn.
Box 1028
Jefferson City, Mo. 65101

Please Make Advance Room Reservation Directly with Ramada Inn.

— Registration Form —

Please register me for the Third Annual County Society Officer Conference of the MSMA, January 31, February 1, 1970, Th Ramada Inn, Jefferson City, Mo.

Name

Address

City State Zip

My wife or husband will accompany me. ☐ Yes ☐ N

Special Feature

History of Ophthalmology in St. Louis

Part II

BENNETT Y. ALVIS, M.D., ***St. Louis***

This comprehensive history was written by a contemporary of all but two of the leading ophthalmologists who were influential in the development of St. Louis as an ophthalmological center. Dr. Alvis received his M.D. degree at St. Louis University in 1918 and became a certified ophthalmologist in 1924. At the age of 85, he is in the private practice of ophthalmology.

Part I of this article appeared in the November, 1969 issue of MISSOURI MEDICINE.

Lawrence T. Post (1887-1958)

Dr. Post received his B.A. degree from Yale University in 1909 and his M.D. degree from Johns Hopkins University in 1913. He then was assistant surgeon at South Baltimore EENT Hospital. He studied ocular pathology with Verheoff.

In World War I, Dr. Post served with distinction and was discharged as a Lieutenant Colonel. He joined the AOS in 1924. From 1933 to 1950, he was Professor of Clinical Ophthalmology. He was head of the Department of Ophthalmology at Washington University Medical School and Ophthalmological Chief at Barnes and its allied hospitals. He was a member of the Council of the AOS and its president in 1952.

Dr. Post was editor-in-chief of *The American Journal of Ophthalmology and Otolaryngology* in 1944. He was director of the National Society for the Prevention of Blindness and received the Leslie Dana Medal in 1948. He earned and received every honor American ophthalmology has to bestow. He was a good teacher and a great executive.

M. Hayward Post, Jr.

M. Hayward Post was a prominent figure in St. Louis and national ophthalmic circles. He has served with distinction on the Council of the AOS, having been a member since 1925 and, also, on the American Board of Ophthalmologic Examiners and in many other areas of importance. A figure in St. Louis society and a member of the country club set, he served an exclusive clientele until his retirement.

Dr. Post is a "storehouse" of knowledge of ophthalmological affairs, both local and national. He has among his friends most of the leaders of ophthalmology in the United States.

John F. Hardesty (1887-1952)

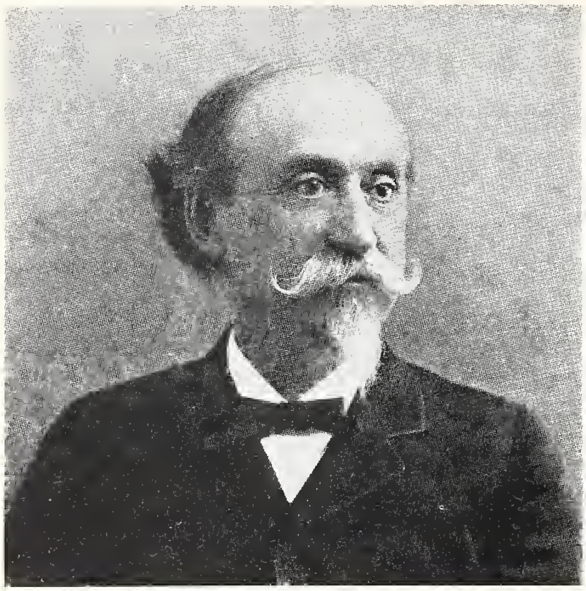
John F. Hardesty received his B.S. and M.D. degrees at St. Louis University in 1914. He was an intern and resident at St. Louis City Hospital from 1914 to 1916 and in the Medical Corps of the British Seaforth Highlanders in World War I, when he became a prisoner of war in 1918 for eight months.

He was associated with William H. Luedde from 1919 to 1925 and was Associate Professor of Ophthalmology at St. Louis University School of Medicine from 1934 to 1953. He joined the AOS in 1934 and was a member of many other local and national societies. He became Medical Director of the St. Louis Society for the Blind, and, also, was a member of Sigma Xi, Alpha Omega Alpha and Psi Epsilon.

Dr. Hardesty was an important figure in St. Louis ophthalmic and social affairs until his health failed, due to cancer.

Leslie Drews (1905-1961)

Leslie Drews obtained his B.S. degree from Washington University in 1927 and his M.D. degree in 1929. He joined the AOS in 1942. He was associated with William H. Luedde for many years. He acquired a knowledge of ophthalmology, second to none, teaching in the Eye Department of St. Louis University Medical School. He became Assistant Professor in 1943 and Associate Professor from 1950 to 1957 and Associate Professor in the Washington University Eye Department in 1957. He was on the staff of 11 hospitals.



Dr. Charles E. Michel

Later, Dr. Drews became interested in and worked at photography of famous paintings with zeal and artistry. He produced thousands of beautiful reproductions.

Frederick O. Schwartz

Dr. Schwartz was assistant to Dr. Luedde and became proficient in ophthalmology, teaching in the Washington University department for many years. A superb artist, he illustrated his lectures to students deftly and effectively. He illustrated the "Book of Ophthalmology" by James Moores Ball.

Five other members of the Green followers deserve more attention, but space permits only the mention of their names, as follows:

George F. Paine (Post Sr.)
Dorcas Meadows (Ewing)
Amalie Napier (Ewing)
John Flury (Ewing)
Carl Beisbarth (Green, Jr.)

Charles Eugene Michel (1833-1913)

Dr. Michel was born in Charleston, S. C. and received a classical education there. His M.D. degree was awarded at S. C. Medical College and he did postgraduate studies for three years in Paris. He studied ophthalmology at Heidelberg University, was a medical officer with the rank of Major in the Civil War with Albert Sydney Johnson and was Professor of Ophthalmology at Missouri Medical College. He was noted for his surgical skill.

Henry Lincoln Wolfner (1861-1935)

Henry Lincoln Wolfner received his M.D. degree from Missouri Medical College in 1881 and studied ophthalmology with Michel and in the clinics of Missouri Medical College. He became Professor of Ophthalmology at Missouri Medical College and Professor of Clinical Ophthalmology at Washington University School of Medicine.

Dr. Wolfner was the first ophthalmologist to try the use of cocaine in his own eye. He was interested in and studied scientific matters. He studied bacteriology in the early days of that science.

An excellent surgeon with an enormous private practice, Dr. Wolfner was on the St. Louis Board of Education for nine years and president of that board at one time.

Meyer Wiener (1876-1965)

Meyer Wiener obtained his M.D. degree at Missouri Medical College in 1896 at the age of 20. He did postgraduate work in ophthalmology in Germany and France and became Professor of Clinical Ophthalmology at Washington University.

Dr. Wiener had a large practice in eye surgery, earning a national reputation for his skill and originality. He did work with lamellar corneal resections. This was developed in rabbit eyes, and he was among the first to try it on human eyes. He was the first to do tendon transplants on human eyes by what was called the Hummelsheim Procedure.

Dr. Wiener retired from practice because of a coronary occlusion on May 29, 1936 and became a consultant to the Naval Hospital in San Diego, Calif.

A prolific writer and great teacher and lecturer on ophthalmology, he was the author of innumerable articles in ophthalmic journals and wrote the "Handbook of Surgery of the Eye." He was editor of *The Annals of Ophthalmology* and *The St. Louis Medical Review*. He also was editor of two volumes of "Ophthalmology in the War Years" (World War II).

Dr. Wiener was not a member of the AOS, but was a man of the "highest standards of ethical conduct." He was kept from membership in the AOS by a false accusation by a friend.

Other Famous Teachers

Adolf Alt (1851-1920)

Adolf Alt was born in Germany and served in the Franco-Prussian War. He obtained his M.D. degree in Heidelberg in 1875 and came to New York as assistant to Dr. Herman Knapp. He was at the New York Ophthalmological and Aural Institute for two years and then came to St. Louis in 1880 to establish a permanent home.

Dr. Alt was editor of *The American Journal of Ophthalmology* from 1884 to 1918. He was a voluminous writer who composed 206 papers, mostly on pathologic subjects.

He was Professor of Ophthalmology at Beaumont Medical College from 1886 to 1901 and, then, Professor of Ophthalmology at St. Louis University until 1910. He then accepted the appointment of Clinical Professor of Ophthalmology at Washington University Medical School at the age of 66 in 1917. He retired as emeritus professor because of the age limit.

Dr. Alt joined the AOS in 1882 at the age of 31. He was one of the founders of the American Academy of Ophthalmology and Otorlaryngology.

A man of great knowledge, he was a dominant figure in St. Louis ophthalmology and was widely known nationally.

William F. Hardy (1875-1949)

William F. Hardy obtained his M.D. degree at Washington University Medical School and graduated *summa cum laude* in 1901. He received ophthalmological training in New York and was associated with Dr. Alt. He acquired further knowledge of ophthalmology of which he possessed a great store. In 1918, he joined the AOS.

Dr. Hardy was the author of many excellent articles on ophthalmology and wrote the chapter on "Congenital Eye Lesions" in the *Encyclopedia of Ophthalmology* in 1918. He was Associate Professor of Ophthalmology at Washington University until his death. He was an excellent surgeon and a convincing teacher.

John Ellis Jennings (1863-1935)

John Ellis Jennings studied for his M.D. degree at the University of Pennsylvania and obtained it in 1887. He then was in general practice in Central America for five years. He studied ophthalmology in Vienna and London for three years and entered practice in St. Louis in 1893. He lectured in ophthalmology at Beaumont Medical College and was an ophthalmic surgeon at Frisco Hospital until his death.

Dr. Jennings belonged to the American College of Surgeons and the American Academy of Ophthalmology and Otolaryngology and was Secretary of the St. Louis Medical Society.

He wrote a great deal and had published "The Manual of Color Vision," which was clear and practical. There were several editions of this. He also wrote "The Self-Registering Color Test" (with Homgren Wools) and "The Manual of Ophthalmoscopy" (1904) with his original drawings in color.

Dr. Jennings was a music lover and played the mandolin and, later, the cello. He also was an accomplished artist in oils and watercolors and a member of the Artists Guild. He formed a Businessmen's Art Club.

James Moores Ball (1863-1929)

Dr. Ball received his M.D. degree at Iowa University in 1884 and did postgraduate work in Europe. He was a member of ophthalmological societies in France and Britain. He became Professor of Ophthalmology at the National University, formerly Barnes Medical. He was the author of Ball's "Modern Ophthalmology" in 1904 and "Andreas Vesalius, the Reformer of Anatomy" (1910).

Edwin H. Bosse (1870-1949)

Dr. Bosse received his M.D. degree at St. Louis Medical College in 1884. He practiced ophthalmology until he retired.

Frederick Eno Woodruff (1872-1962)

Dr. Woodruff received his M.D. degree in 1897 at the Missouri Medical College and, then, studied ophthalmology in Vienna at Fuchs' Clinics. He joined the AOS in 1923. He was a professor at Washington University and a President of the St. Louis Medical Society.

Max William Jacobs (1880-1962)

Dr. Jacobs received his M.D. degree at Washington University in 1905 and was Associate Professor of Ophthalmology at Washington University.

Roy E. Mason (1880-1960)

Dr. Mason received his M.D. degree at St. Louis University Medical School. He served in the Medical Corps in World War I and was stationed in New York. He supervised the diet and care of the returned wounded men with outstanding success. He then did postgraduate work in ophthalmology in New York for two years.

In St. Louis, Dr. Mason practiced industrial ophthalmology. He built an outstanding reputation for fairness to employee and employer. Later, he wrote a brochure on disability compensation which was accepted as a guide by the souri Compensation Commission.

Dr. Mason was a keen businessman and made a sizable fortune in Iowa farmland.

William A. Shoemaker

Dr. William A. Shoemaker joined the AOS in 1902. He was prominent in St. Louis ophthalmic circles for many years.

J. T. Shoemaker

Dr. J. T. Shoemaker was associated with Dr. William A. Shoemaker for a number of years. He joined the AOS in 1911.

Frank Henderson

Dr. Henderson obtained his M.D. degree from Missouri Medical College in 1888. He was a member of the Missouri State Medical Association and St. Louis Medical Society and a president of the latter. He was a highly respected ophthalmologist who died at the age of 62.

Charles W. Tooker (1881-1965)

Dr. Tooker received his M.D. degree at Washington University Medical School in 1904 and, then, was associated with Dr. William A. Shoemaker. He was elected to the AOS in 1926.

William M. James (1899-1963)

Dr. James studied for and received his M.D. degree in 1926 at Washington University. He then interned for two years in a United States Army Hospital. He was the first full-time resident in ophthalmology at Barnes and its allied hospitals from 1928 to 1930. He was a member of the staff from 1930 to 1963. He became a member of the AOS in 1942 and was the author of a number of scientific papers.

Paul Anton Cibis (1911-1965)

Paul Anton Cibis was born in Silesia, Germany, which is now Poland. He obtained his M.D. degree at the University of Berlin (now the University of Breslau and Munich) in 1936 and interned at the University of Berlin with his residency at the University of Heidelberg in the eye clinic in 1938.

Dr. Cibis came to America in 1929 and did research for the Air Force on the effects of nuclear explosion on the eye until 1955. He has held the following positions:

Research and Clinical Assistant at the University of Heidelberg Eye Clinic—1940 to 1944, Oberarzt and Docent.

Research and Clinical Assistant in Ophthalmology at Heidelberg University, 1944-1949.

Research Ophthalmologist at the USSF School of Aviation Medicine, 1949-1955.

Instructor in Ophthalmology at Washington University—June, 1955-1956.

Associate Professor of Ophthalmology at Washington University, 1956-1965.

Dr. Cibis belonged to a number of societies which included The German Ophthalmological Society, Optical Society of America, Association for Research in Ophthalmology, The American Medical Association, The Jules Gonin Club, The German Medical Society of Chicago and The Pan-American Ophthalmological Association. He was elected to the AOS posthumously in 1965.

Dr. Cibis was awarded the Graefe Award by the German Ophthalmological Society of Heidelberg. He was the author of 33 papers and the co-author of 34 papers. He performed 1,000 operations during the last year of his life and literally gave his life to his work.

Other ophthalmologists who should be mentioned are the following:

Nathan Semple
Henry Muetze
Alan Calhoun
Alan Calhoun, Jr.
Hugo Reim
Clyde Dyer
William Owen
Emmet North
Harry Hughes
Carl Eber
Newman Donnell
Cecil Campbell
Cecil Campbell, Jr.
Helen Gibson
Leo Mayer
Vincent G. King
Vincent Jones

Following is a list of St. Louis ophthalmologists and their contributions to the science of ophthalmology:

Ewing, A. E.—Dacryocystography: Dr. Ewing was the first to make x-rays of the tear ducts. Blepharoplasty for Cicatrical Ectropion: This operation with its modification by Dr. A. A. Siniscal remains as one of the best operative procedures for scarring deformity of the eyelids that follows trachoma.

Luedde, W. H.—Mechanism of Accommodation: Much research and many papers were done by Dr. Luedde dealing with the method by which a person changes the focus of his eyes.

Wiener, Meyer—Dr. Wiener was the first ophthalmologist to do a Hummelsheim muscle tendon transplant for paralytic squint on humans. He also was the first to do Lamellar resection for the removal of superficial corneal scars.

Szewczyk, T. S.—Dr. Szewczyk did much work in retrolental fibroplasia, its etiology and prophylaxis. He was the first to prove that oxygen can cause blindness in premature babies, if not used correctly. This was a common cause of blindness before Dr. Szewczyk's monumental paper.

Siniscal, A. A.—Dr. Siniscal did fundamental research in the public aspects of the treatment of trachoma, a formerly common disease in Southeastern Missouri.

Shahan, W. E.—Dr. Shahan invented the Shahan Thermophore for sterilizing the cornea by heat without destroying the cornea itself.

Howard, Harvey—The McMillan Hospital Building is a monument to Dr. Howard's constructive imagination, even though it went beyond the financial resources then available.

Cibis, Paul A.—Dr. Cibis made extensive fundamental contributions in the surgical treatment of retinal detachments and, also, in color vision theory and other areas of physiological optics.

Becker, Bernard—Dr. Becker has done much work on glaucoma with extensive research on this important cause of blindness. He introduced Diamox therapy and proved its effectiveness in lowering intraocular pressure. He reorganized the Department of Ophthalmology in Washington University and made it outstanding in teaching and research.

Continuing Education Coming Events

Dec. 10-12	**Symposium—Gynecology and Obstetrics** University of Kansas School of Medicine Kansas City, Kan.
Dec. 10-11	**Seminar—Comprehensive View of Endocrinology and Metabolism** Menorah Medical Center, Kansas City 64110
Dec. 12-13	**The Cleft Palate Team** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Jan. 23-24	**Relationship of Rehabilitation to Disability Determination** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Feb. 4	**Conference—Office Pediatrics** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Feb. 5-6	**Cerebral Palsy** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Feb. 9-10	**Symposium—Cardiac Auscultation** University of Kansas School of Medicine Kansas City, Kan.
Feb. 10-12	**Seminar—Comprehensive Care in Pulmonary Diseases** Menorah Medical Center, Kansas City 64110

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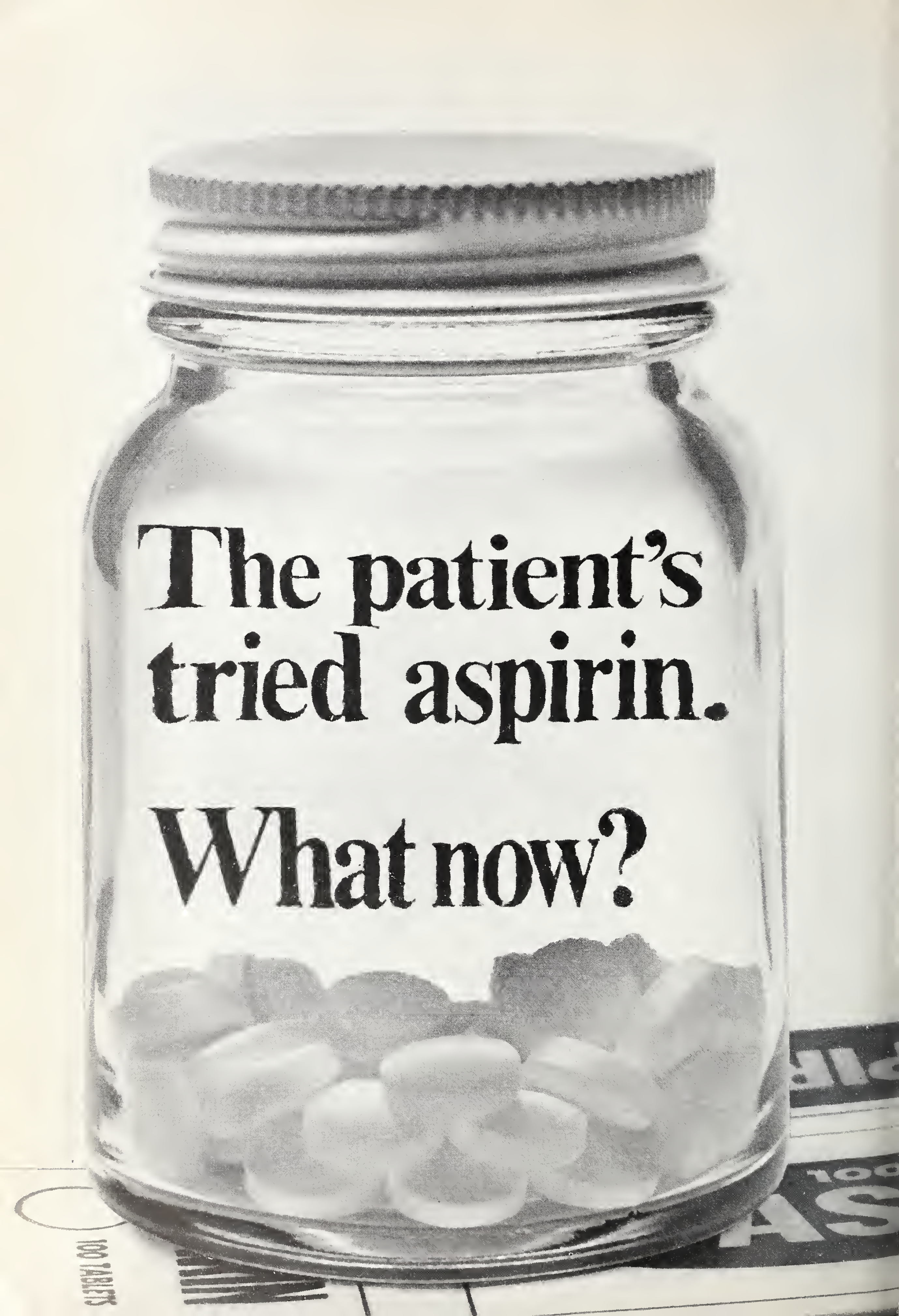
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IN BRIEF

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Warnings: USE IN PREGNANCY: Safety for use during pregnancy or lactation has not been established; therefore, it should be used in pregnant patients or women of child-bearing age only when the physician judges its use essential to the patient's welfare.

Precautions: Keep out of reach of children. Not recommended for patients 12 years old or less. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate in susceptible persons—as alcoholics, ex-addicts, severe psychoneurotics—has resulted in dependence or habituation. Withdraw gradually after prolonged excessive dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance, with resultant slowed reactions and impaired judgment and coordination. If drowsiness, ataxia or visual disturbances (impairment of accommodation and visual acuity) occur, reduce dose. If symptoms persist, patients should not operate machinery or drive. After meprobamate overdose, prompt sleep, reduction of blood pressure, pulse and respiratory rates to basal levels, and hyperventilation are reported. Give cautiously and in small amounts to patients with suicidal tendencies. Treat attempted suicide (has resulted in coma, shock, vasomotor and respiratory collapse and anuria) with gastric lavage and appropriate symptomatic therapy (CNS stimulants and pressor amines as indicated). Two instances of accidental or intentional significant overdosage with ethoheptazine and aspirin have been reported. These were accompanied by CNS depression (drowsiness and lightheadedness) but resulted in uneventful recovery. On basis of pharmacologic data, CNS stimulation could be anticipated, with nausea, vomiting and salicylate intoxication (requires induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, and observation for hypoprothrombinemic hemorrhage [usually requires whole blood transfusions]).

Adverse Reactions: Ethoheptazine and aspirin may cause nausea with or without vomiting and epigastric distress in a small percentage of patients. Dizziness is rare at recommended dosage. Meprobamate may cause drowsiness, ataxia and rarely allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses. Such patients may have had no previous contact with meprobamate and may or may not have an allergic history. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. If allergic reaction occurs, discontinue meprobamate; do not reinstitute. Severe reactions, observed very rarely, include fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. These cases should be treated symptomatically including, when indicated, such medication as epinephrine, antihistamine and possibly hydrocortisone. A few cases of leukopenia, usually transient, have been reported on continuous use. Rarely, aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported, almost always in presence of known toxic agents.

Overdosage: See precautions section for management of overdosage.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

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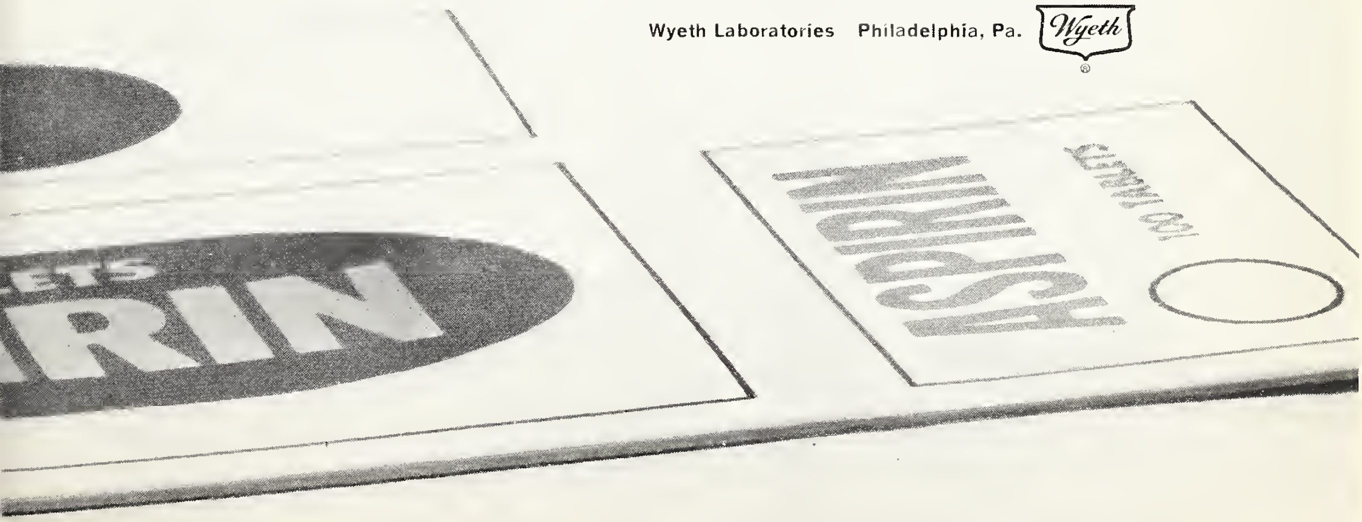

AMA, Rep. Hall Submit Health Insurance Plans to House Ways and Means Committee

(Dr. Russell B. Roth, speaker of the AMA's House of Delegates, recently appeared before the Congressional House Ways and Means Committee to outline the AMA's voluntary national health insurance plan, "Medicredit." The following is a brief review of his testimony.)

An American Medical Association spokesman has urged the House Ways and Means Committee to consider adoption of its voluntary national health insurance plan, which it terms "Medicredit."

According to Dr. Russell B. Roth, speaker of AMA's House of Delegates and practicing physician in Erie, Pa., "Medicredit" would not affect the present Medicare program for those 65 and older.

It would utilize a system of federal income tax credits to those individuals and families who purchase qualified health coverage from approved private insurance companies or plans.

In effect, Dr. Roth testified, a person's federal tax liability would act as an index as to what share of the cost of his health insurance premium would be borne by the federal government and how much would be paid by the individual.

For those individuals and families who, in terms of their tax liability, are in the bottom 30% of taxpayers, health insurance protection would be provided without cost to them.

They would, Dr. Roth said, simply receive a certificate entitling them to free health insurance. They, in turn, would submit the certificate to a qualified company or plan. The private insurer who issues a comprehensive plan covering both hospital care and physicians' services would then be reimbursed directly by the federal government.

Dr. Roth explained that as the individual or family's tax liability level rose, the federal government would assume a smaller proportionate share of the cost of health insurance.

Federal tax credit would be subtracted from the amount of income tax owed the federal government in a given year.

"For example," Dr. Roth said, "a taxpayer

(Continued on page 964)

(Following is the testimony of Rep. Durward G. Hall, Springfield, before the Congressional House Ways and Means Committee on Nov. 4, 1969. MISSOURI MEDICINE *has been informed that his proposal was "unanimously, favorably received by the members of the Committee.")*

Mr. Chairman, Members of the Committee:

The purchasing power and stability of the Social Security Retirement system has been sorely tested by inflation and by inflation and by actual and pending threats of raids on its trust fund (from both the Disability and Medicare Programs), which were erroneously costed to the Congress by *eager salesmen.*

Rep. Durward G. Hall

Your committee has just heard that Part "A" of Medicare needs a 50% increase in funding—and Part "B" needs about $1.25 increase from both the aged and the federal treasury.

My interest in preserving the integrity of the retirement "foundation stone," our Social Security Program, and to assure solid actuarial arrangements for future health programs compelled me to seek an opportunity to appear as a witness before this committee.

I would hope that as Congress struggles with "Medicaid" for our poor, a realistic *"test of need"* be our goal, in deference to our overburdened wage-earner-taxpayers, who expect Congress not to tax them to support others, who are capable of providing health care for themselves.

Like all of you, I have been reading about the recent governors' conferences and their demands for larger federal participation in Medicaid. Additionally, my attention has been attracted to the Reuther, Rockefeller and American Medical Association proposals.

The Reuther proposal, to place the *entire* population under Medicare, is by far the worst of all possible solutions! Blanketing all under one federal program as it does, when the large majority of our population is well able to and desire to purchase their own health care programs, is unthinkable in these times of inflation, tax needs and revision and dollar declines.

We are today providing federal dollars to support more than 50% of the cost of Medicaid currently covering 10.2 million individuals. We spend about 4.5 billion federal and state dollars (2.6 billion federal) or approximately $400 per individual.

The Rockefeller plan would have the federal government assume the total cost of "Medicaid" and then make it compulsory for the rest of the population to cover themselves with private insurance plans—employers if any, paying half the cost. Yesterday, the American Medical Association suggested both a federal assumption of "Medicaid" and a tax-credit plan giving incentive credits to persons who purchase their own insurance, with the size of the credit being related to the extent of their incomes.

In light of this background of possible solutions and based on my own background, experience in practice and evaluation in Congress, I would propose a new two-part program—not within the Social Security System, but doing away with Medicaid and creating a whole new category.

One program that I feel Congress will accept at this time would be directed at the "Medicaid" type recipient. And another, that you might wish to consider more thoroughly at a later date (should Congress decide to institute some type of *universal* coverage).

Part I—Medicaid

Currently, there are 10.2 million individuals covered by Medicaid, all of whom sorely need medical care protection. The young in the ADC program generally don't have *high* medical expenses. However, the aged are spending about 40% of Medicare's total dollars, and about 30% of the total is going into nursing home expense. Yet, the average cost per person served is, as I said earlier, $400 annually.

This fiscal year, the federal government will have need to spend $2.6 billion. Next year, the cost would rise to $3 billion, but the states *can't* go on meeting their share. In fact, about a dozen states *haven't even started.* I do not propose that the federal government take over the whole financial load, but rather that we offer each state this proposition: The federal government will supply the cost of a health insurance certificate to every eligible recipient. Said certificate will entitle them to a health plan of certain specified basic health protection (defined by congress) and which would be purchased from existing private carriers including the "Blues" and would amount to perhaps 85% of the average $400 annual health care expense, provided, however, that the state will assume the balance of health expenses for each individual who exhausts his basic benefits. In other words, the states would assume this rare, but financially devasting, catastrophic expense.

The merits of this suggestion (to mention just a few) are:

1. The states will be required to spend less than they are currently spending and could plan, budget and appropriate for it.
2. The federal government will expend approximately a billion dollars more annually (3.6 vs. 2.6), but the federal government's share would not be subjected to unexpected escalation and could be budgeted with fair certainty.
3. When the states are called upon to spend their catastrophic dollars, they will be acting in their traditional and historic role in assuming such long term care as mental illness and TB.

Now the question becomes, who would be entitled to a free health insurance voucher? This is a *critical* decision that could be decided on the same basis as that used in the Hill-Burton Program, where the federal share is determined by the per capita wealth of the city in a state, as compared to the national per capita wealth. Perhaps the average eligibility figure will be in the neighborhood of, say, $3,000 or $3,200, where New York with a high cost of living pegged at, say, $4,500 for a family of four. In the case of some of the poorer states, where living is cheaper, the figure could be $2,600.

Part II— Those Who Can Afford to Purchase Their Own Health Plan

For those Americans with income above the eligibility line set in Part I of my suggestion and in any universal health plan designed by Congress for the more affluent, I would oppose any federal subsidy—with one *single* exception: protection against economic catastrophic-type illness. I want to repeat that again—for those Americans with income above the eligibility line set in Part I—I would oppose any federal subsidy—with the lone exception being protection against catastrophic-type illness. This is the only area where the federal government should properly involve itself with those who are able to care for their own needs. And it should be

(Continued on page 964)

WASHINGTON

The AMA submitted to the Ways and Means Committee a statement on the Nixon Administration's "Health Cost Effectiveness Amendments of 1969" legislation.

The AMA commended the Department of Health, Education and Welfare for its efforts to curtail the rising costs of Medicaid and Medicare, but said that the Association believes "there are better and more appropriate means of meetting this problem."

As for the provision prohibiting payment to physicians who have committed fraud, overcharged or otherwise abused the Medicare program, the AMA said:

"It should be kept in mind that there presently exist remedies to reach the cases of abuse which may exist—certainly the cases of extreme abuses which HEW has asserted these proposed penalties are intended to reach. While it is true that the law does not provide authority to disqualify physicians as to prospective participation, a carrier may reject or review a physician's claims on an individual basis as each claim is presented.

"The apparent concern of the Congress regarding alleged abuses and increasing program costs may require some changes in the administration of federally-financed health care programs. However, the proposed amendments appear to introduce more severe remedies than the problems require."

As for the provision that utilization review committees pass retroactively on the medical necessity of admission of Medicare patients to hospitals, the AMA said:

"At the present time, a utilization review plan of an institution must provide for review, on a sample basis or other basis, of admissions, duration of stays and services furnished but must provide for review of each case of extended stay and also determine medical necessity of further stay. The law provides for three additional days of benefit payments after a negative finding and notification.

"Where a finding has been made that the admission was unnecessary, no payment would be made. Thus, the denial of payment would be retroactive to the date of admissions. The three-day grace period is removed from existing law.

"The AMA previously objected to initial certification of the need for admission to a hospital, and this initial certification requirement was removed from the law. Under this bill, the utilization review committee would be required to review the attending physician's judgment regarding the need for hospitalization. The present requirement of the committee under Medicare is to review extended stay cases to determine need for further stay; thus, it does not review a great number of cases of hospitalization where the patient is discharged earlier. Requiring committees to review all cases of hospitalization would impose a tremendous burden on the committee, and create additional heavy demands on physicians' productive manhours.

"An adverse finding by a committee would subject the patient to individual liability for hospital charges. As a result, this provision could act as a restraint on patients receiving care, particularly in those cases where a physician recognizes the possibility of differing medical judgments concerning the admission."

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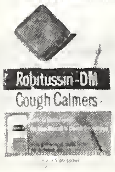

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100 Docs Attend SE Mo. Cancer Conference

Approximately 100 physicians from Southeast Missouri, Southern Illinois and St. Louis attended the Southeast Missouri Cancer Conference in Cape Girardeau on October 19.

Ten area doctors presented reviews on various topics relating to malignant tumors. They were Drs. E. T. Hansbrough, S. L. Gernstetter and John H. Tatum of Poplar Bluff; Paul C. Miltenberger of Kennett; George L. Watkins, Jr. of Farmington; Max A. Heeb and William C. Shell of Sikeston; and Harold D. Ridings, Harold B. Rapp and Charles P. McGinty of Cape Girardeau.

Dr. Melvin C. Kasten

Dr. Melvin C. Kasten of Cape Girardeau, President of the State Board of Registration for the Healing Arts, also addressed the Conference.

The after-dinner speaker was Dr. Robert C. Hickey, director of the University of Texas M. D. Anderson Hospital and Tumor Institute in Houston, Tex., where he is also professor of surgery. Dr. Hickey also is clinical professor of surgery at Baylor University College of Medicine.

His remarks were keyed to a comparison of the cancer program in Texas with the program in the Southeast Missouri area for educational purposes.

Dr. Charles P. McGinty (left), President of the Cape Girardeau County Medical Society, and Dr. Eugene T. Hansbrough of Poplar Bluff, Councilor for the Tenth MSMA District, participated in the scientific program at the Southeast Missouri Cancer Conference.

Others attending the Conference included Dr. William Shieber, representing the cancer program of the American College of Surgeons in Missouri; Mr. Royal O. Cooper, field secretary for the Missouri State Medical Association; and Mrs. Margie Krennerich of the Cancer Commission of the American College of Surgeons in Chicago, Ill.

Mr. Dewayne Welter, Southeast Missouri field representative for the American Cancer Society, and members of the Cape Girardeau Chapter of the Society assisted with local arrangements and registration.

Social Security Disability Benefits for Self-Employed Physicians

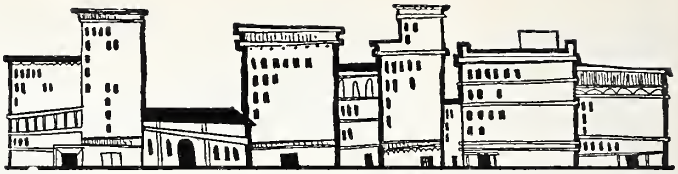
Many self-employed physicians reached an important social security landmark this October. With their earnings covered since 1965, they have now contributed to social security long enough to be insured for disability.

Social security disability benefits can be paid to an insured person under 65 who has a physical or mental impairment severe enough to keep him from doing any substantial work for a year or longer. Payments begin after a waiting period of six full calendar months.

Benefits can be as much as $218 a month for a disabled person alone and up to $434.40 a month for a family. Self-employed physicians disabled in the immediate future, however, would probably not yet be eligible for these maximums since their earnings have been covered by social security for a relatively short time. Benefits are figured from a person's average covered earnings over a period of years.

"This disability protection can be a valuable supplement to the physician's private insurance," said Bernard Popick, director of social security's disability program. "It is part of the total social security package of protection—disability, retirement, survivors and health insurance—toward which the physician has been contributing."

From the Medical Schools



WASHINGTON UNIVERSITY

Dr. and Mrs. Justin J. Cordonnier proudly display the plaque which was presented to Dr. Cordonnier recently by urological residents who have trained with him for 20 years. The presentation was made during the South Central Sectional meeting of the American Urological Association.

Dr. Justin J. Cordonnier, professor of urological surgery and head of the urology division at the School of Medicine, is the recipient of a plaque presented to him by urological residents who have trained with him during the past 20 years.

Dr. Cordonnier was honored by more than 40 former residents at a dinner held recently in conjunction with the South Central Sectional meeting of the American Urological Association in Colorado Springs, Colo. William Valk, M.D., head of the division of urology at the University of Kansas School of Medicine, was guest speaker at the event.

A 1928 graduate of the School of Medicine, Dr. Cordonnier has been a faculty member since 1938.

Charles Yanofsky, Ph.D., president of the Genetics Society of America, delivered the 13th Philip A. Schaffer Lecture on October 22 in Clopton Amphitheatre at the School of Medicine.

A professor of biology at Stanford University, Palo Alto, Calif., Dr. Yanofsky spoke on "Regulation of the Tryptophan Operon of E. Coli." His experiments with the bacterium Escherichia coli have clarified how the genetic code is read by cell machinery to yield specific proteins.

A career investigator for the American Heart Association, the 44-year-old Dr. Yanofsky is one of 14 scientists receiving a lifetime award to conduct medical research.

MISSOURI UNIVERSITY

Two additions to the Medical Center—a nine-bed clinical research center and multidisciplinary laboratories for 224 medical students—were dedicated on October 12 at the University of Missouri-Columbia.

Congressman William R. Hull, Jr., of the Sixth District was the principal speaker at the dedication ceremonies. He was introduced by Congressman Richard Ichord of the Eighth District.

Dr. William D. Mayer, dean and director of the Medical Center, presided at the dedication. Dr. Vernon E. Wilson, vice-president for academic affairs, and Dr. John W. Schwada, chancellor for the Columbus campus, made special dedication remarks. Dr. John F. Maher, professor of medicine and new director of the clinical research center, and Dr. John F. Maher, professor of pathology and director of the multidisciplinary student laboratory, also took part in the ceremonies.

Dr. William R. DeCesare, chief of clinical research centers, division of research resources, for the Department of Health, Education and Welfare, attended the dedication.

Dr. J. Allen Smith, resident physician in the department of surgery, urology division, at the School of Medicine, won first prize in the residents' research competition at a recent meeting of the American Urological Association.

Ten resident finalists from training programs at major medical centers in the United States presented the results of their research at the meeting in Colorado Springs. Dr. Smith received first prize of $250 for his report on a new method for diversion of the urine following removal of the urinary bladder. The technique, devised by Dr. Ian Thompson, chief of the section of urology at the Medical Center, and Dr. Smith represents a significant advance in the approach to cancer of the lower urinary tract.

Dr. Fernando Tapia, chief of the section of child psychiatry at the University of Missouri Medical Center, was chosen president-elect of the Mid-Continent Psychiatric Association at a recent meeting in Oklahoma City. Dr. Tapia, who will serve as president of the organization during the 1970-71 academic year, is professor of psychiatry in the School of Medicine and director of the children's service of the Mid-Missouri Mental Health Center.

The use of ultrasonic equipment in detecting the precise area where a surgeon should make an incision for an operation on his patient was discussed by Dr. Hal Bingham of the School of Medicine at the annual meeting of the American Society of Plastic Surgeons on October 12-16.

Dr. Bingham's paper concerning this new bioengineering technique was supplemented by a 15-minute color and sound film made at the Medical Center. It shows how the ultrasonic flow meter detects velocity of blood flow by sensing and amplifying the frequency shift that occurs when ultrasound moves through moving blood.

ST. LOUIS UNIVERSITY

Six members of the medical faculty participated in a correlation conference on peripheral vascular disease for Founders Week sponsored by the Medical Alumni Association. Dr. Max Pepper, professor and chairman, department of community medicine, delivered the address of welcome. Moderator was Dr. V. L. Willman, professor and chairman, department of surgery. Other participants and their subjects were, Dr. A. R. Lind, professor and chairman, department of physiology, "Physiology of Peripheral Vascular Disease"; Dr. George Sorenson, professor and chairman, department of pathology, "Pathological Anatomy of Peripheral Vascular Disease"; Dr. Edwin E. Westura, associate professor of internal medicine, "Clinical Evaluation of the Peripheral Vascular Disease"; and Dr. Hendrick B. Barner, assistant professor of surgery, "Management of Peripheral Vascular Disease."

Rev. Paul C. Reinert, S.J., president of St. Louis University, congratulates Dr. James P. Murphy of St. Louis, recipient of the alumni merit award in medicine for 1969.

Dr. James P. Murphy, a practicing physician and an assistant clinical professor of medicine at the School of Medicine, was the recipient of the alumni merit award in medicine for 1969 at a Founders Week luncheon held at Busch Memorial Center. Rev. Paul C. Reinert, S.J., University president, made the presentation.

Dr. Murphy has long been active in local, state and national professional associations. He is past president of the Missouri Society of Internal Medicine, St. Louis Heart Association, St. Louis University Medical Alumni Association and Catholic Physicians Association.

Dr. John H. Gladney, assistant clinical professor of otolaryngology, has been elected president of the St. Louis University Hospitals Medical staff. He served as vice-president of the St. Louis University Hospitals staff from 1968 to 1969. He succeeds retiring president Dr. Matthias H. Backer, associate clinical professor of gynecology and obstetrics at the School of Medicine. Dr. Gladney's term of office is for a one-year period. Dr. Robert H. Ramsey, assistant clinical professor of internal medicine, was elected vice-president of the medical staff and Dr. Donald R. Judd, assistant clinical professor of surgery, was elected secretary and treasurer.

Dr. Edward T. Auer, professor and chairman, department of neurology and psychiatry, was a member of the Group for the Advancement of Psychiatric Committee on Psychiatry and Law that formulated the recently published report *The Right to Abortion: A Psychiatric View.* The report reflects the judgment of all members of the GAP.

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cautions: Avoid abrupt withdrawal after prolonged lthough withdrawal symptoms have not been reported e. Exercise caution in addiction-prone individuals. If toms of hypersensitivity occur, discontinue at once nitiate appropriate symptomatic treatment. Avoid ies requiring optimal mental alertness if drowsiness tigo are present. As with any new drug, use cautiously ients with history of drug allergies, blood dyscrasias, epatic or renal disease; periodic measurements of c, hematopoietic and renal function should accom- prolonged and/or high doses.
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ROBINS

New Members

Jerry W. Cook, M.D., 7010 N. Cherry, Kansas City, has become a member of Clay County Medical Society. Dr. Cook is a native of Clayton, received his preliminary education at Washington University and his M.D. Degree at the University of Missouri in 1965. He specializes in ophthalmology.

John Deligeorges, M.D., 7010 N. Cherry, Kansas City, has become a member of Clay County Medical Society. Dr. Deligeorges is a native of New London, Conn., received his preliminary education at Amherst College and his M.D. degree at Northwestern University in 1963. He specializes in ophthalmology.

Robert E. Denton, M.D., Smithville Clinic, Smithville, has become a member of Clay County Medical Society. Dr. Denton is a native of Horton, Kan., received his preliminary education at the University of Wichita and his M.D. degree at the University of Kansas in 1964. He specializes in general surgery.

Chester F. Fee, M.D., 4620 J. C. Nichols Parkway, Kansas City, has become a member of Jackson County Medical Society. Dr. Fee is a native of Cunningham, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1956. He specializes in orthopedic surgery.

James H. Garner, M.D., 6700 Troost, Kansas City, has become a member of Jackson County Medical Society. Dr. Garner is a native of Washington, D. C., received his preliminary education at Oklahoma State University and his M.D. degree at the University of Oklahoma in 1962. He specializes in orthopedic surgery.

Howard B. McKee, M.D., 2509 Jackson, Joplin, has become a member of Jasper County Medical Society. Dr. McKee is a native of Springfield, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1968. He is in general practice.

Lenard L. Politte, M.D., 113 W. Broadway, Columbia, has become a member of Boone County Medical Society. Dr. Politte is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at the University of Missouri in 1962. He specializes in internal medicine.

James R. Waltz, M.D., 4240 Blue Ridge Blvd., Kansas City, has become a member of Jackson County Medical Society. Dr Waltz is a native of Massillon, Ohio, received his preliminary education at Ohio University and his M.D. degree at Ohio State University in 1962. He specializes in general surgery.

medical melange

Notes of interest from Here .... and There

Dr. Ed Wallace, Mexico, was elected president of the East Central Missouri Association for Mental Health at the annual meeting in the new Mental Health Center in Mexico. **Dr. Charles Lewellen,** Louisiana, was elected a vice-president.

Dr. Mary Elizabeth Morris of St. Louis was complimented in a feature story recently by **Dorothy Gardner** of the *St. Louis Post-Dispatch* staff. In 40 years as an obstetrician and gynecologist and a mainstay of St. Louis Municipal Health Clinics, Dr. Morris has delivered more than 1,000 babies. She started working at the four Municipal Health Clinics in World War II and has remained a dependable regular. Also, she has been the long-time medical director of Meramec Hills, a city institution for delinquent and dependent girls. To quote Miss Gardner, "Although her retirement as an obstetrician is a first step toward eventual full retirement 'ten or 20 years from now,' her neighbors, city officials and state legislators know better than to expect the salty, crusading doctor to relax into quiet, dignified old-ladyhood." "Now I will have more time to work for the things I believe in," stated Dr. Morris.

The three-floor addition to the Dunklin County Memorial Hospital will be named in honor of **Dr. Paul Baldwin,** veteran Kennett physician. Dr. Baldwin, who served as chairman of the hospital's board of trustees for many years before his retirement, attended the ceremonies on October 3 and assisted in breaking the ground for the hospital wing that will bear his name.

Dr. George F. Cresswell, Potosi, a practicing physician for 51 years, was given "his day" on October 27 by an overflow crowd of friends who gathered to honor him at a special "Dr. Cresswell Day" observance. Although sponsored by the Washington County Democrat Club, the event was a non-partisan event. In addition to many other activities, Dr. Cresswell was cited for his work with the Potosi Chamber of Commerce and other civic groups and for his work toward establishing a county hospital.

Dr. Russell D. Shelden, Kansas City, has been elected district director of the American Society of Anesthesiologists representing the states of Missouri and Kansas.—**Dr. Robert V. Brennan,** St. Louis, has been elected president of the St. Joseph Hospital medical staff. He succeeds **Dr. Joseph D. O'Keefe.** Other new officers are **Drs. J. W. Haynes,** president-elect, and **Gerard H. Berndsen,** secretary-treasurer.

Dr. Watkins Andrew Broyles, Bethany, was one of three notable Harrison County men to be formally inducted into the County's Hall of Fame in October by the Harrison County Historical Society. Others who were honored were the late **Rev. John** S. **Allen** and **General Benjamin Mayberry Prentiss.** Admission to the county Hall of Fame is based upon service to the community, state and nation.

The Medical Arts Clinic in Flat River has announced that **Dr. Juan Cancelada** will join the eight-man group on December 1. Dr. Cancelada, a specialist, will join **Dr. F. R. Crouch** in the practice of obstetrics and gynecology. The Clinic staff will now consist of two obstetricians, two surgeons, an internist and four members of the department of family practice.

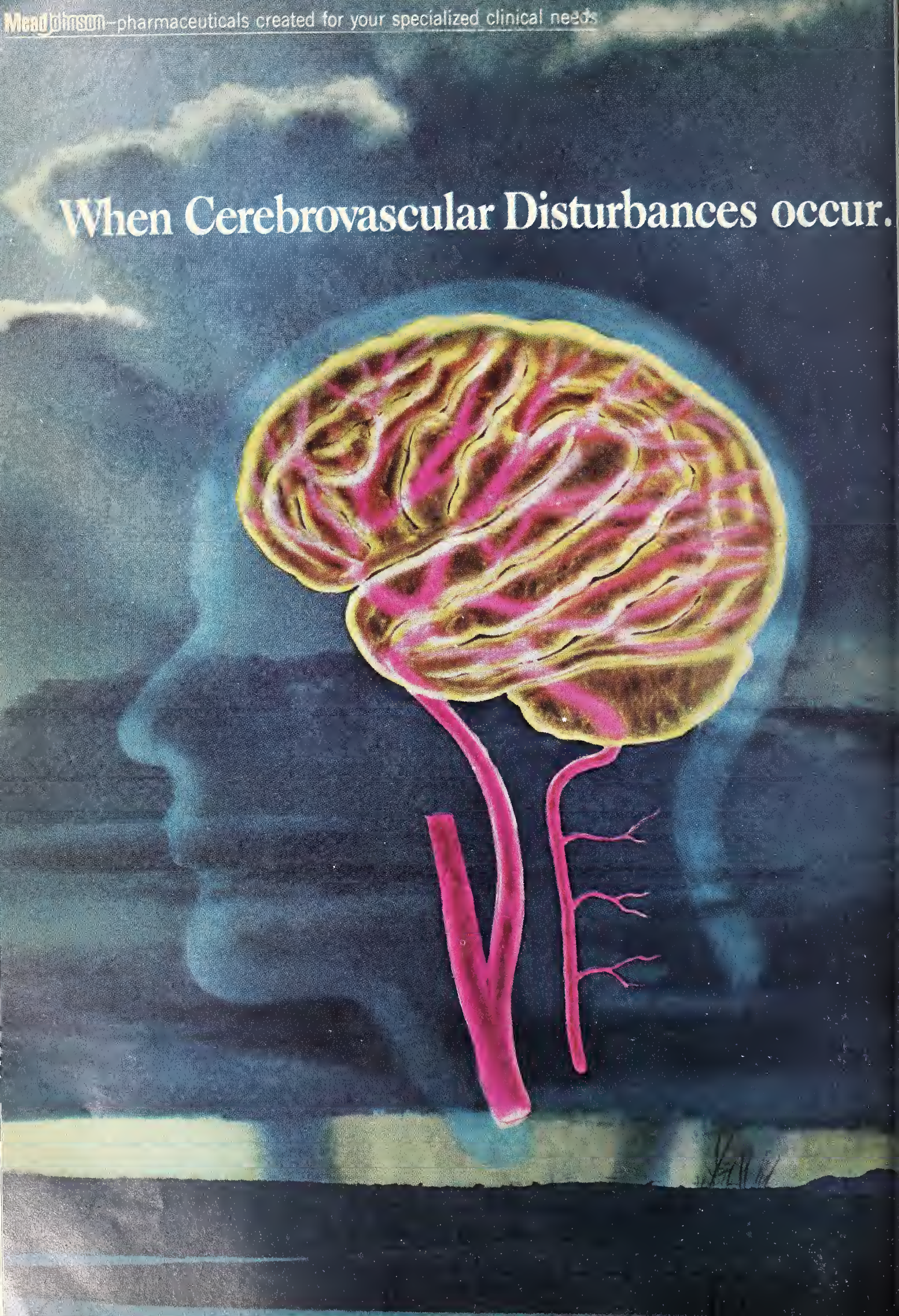
Dr. J. J. Royce, Sarcoxie, was installed as worthy patron of the Grand Chapter of Missouri, Order of Eastern Star, in Kansas City in October. Dr. Royce served the grand chapter in 1968 as grand sentinal and in 1969 as associate grand patron.

Paul Maurice Zoll, M.D., clinical professor of medicine, Harvard Medical School, was the Eleventh Arthur Strauss Visiting Professor at The Jewish Hospital of St. Louis on November 10-12. Dr. Strauss, in whose honor the Visiting Professorship has been established, is a native of St. Louis and a graduate of Harvard Medical School. His contributions to Jewish Hospital have included serving at various times as head of the clinic, physician-in-charge of the Heart Station, director of the Department of Medicine and president of the Hospital Staff. At the age of 80, Dr. Strauss is still fully active in practice, is Assistant Professor of Clinical Medicine, Emeritus at Washington University and has the special distinction of serving as consultant in cardiology and medicine at Jewish Hospital.

Dr. Henry E. Oppenheimer, Clayton, served as moderator for The Second Annual Symposium on Diabetes at St. John's Mercy Hospital in St. Louis on October 21. **Dr. Francis A. Zacharewicz,** assistant professor of internal medicine, St. Louis University School of Medicine, discussed "Indications for Insulin Therapy, Time-action Characteristics" and **Dr. Robert L. Jackson,** professor and chairman, Department of Pediatrics, University of Missouri School of Medicine, discussed "Control of Diabetes With Insulin."

Dr. Hugh V. Ashley, Jr., has been appointed to fill a vacancy on the Cape Girardeau Board of Education. Dr. Ashley formerly served three terms on the school board.—**Dr. David G. Hall,** professor and chairman of the Department of Obstertrics and Gynecology at the University of Missouri School of Medicine, served on the Examining Board of the American College of Obstetricians and Gynecologists on November 16-21 in Chicago.

The new radiology center at St. Louis County Hospital was opened officially by **Supervisor Lawrence K. Roos** of St. Louis County on October 14. Eight diagnostic units, three cancer therapy units and two automatic film processors are included in the new X-ray equipment. **Dr. Samuel J. Merenda** is Director of the hospital's Department of Radiology; **Dr. Robert Kingsland** is Chief of Staff; and **Dr. R. O. Muether** is Director of Medical Education.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YEU-TSU N. LEE, M.D., *Columbia*

Tumor Growth Rate and Its Clinical Applications

The progressive increase in size of animal or vegetable bodies is called "growth." The basic process involved, as one learned from biology lessons, is division of cells. Although still an hypothesis, the origin of cancer also can be assumed to be from a single cell. This particular cell divides to become two, four, eight, etc. The total time occupied by the events involved in the formation of two daughter cells from one parent cell is referred to as the "generation (or replication or cell cycle) time." If the generation time of the tumor is assumed to be constant and if a certain proportion of the cells divide at a randomly steady rate (mitotic index), then the growth of the cancer obeys the compound interest law: the increase in size of a cancer at any moment is proportional to its initial size.[1] The mean length of time required for the division of all the cells of the cancer (and, thus, double its volume) has been designated as the "doubling time" of the cancer.[2]

In practice, cellular "generation time" is measured by specific in vitro techniques. By using radioisotope phosphorous (P^{32}) or tritiated thymidine (^{3}HTDR), which is incorporated into the nucleic acid synthesis in tissue cultures, the kinetics of cell division can be readily studied.[3] On the other hand, "doubling time" is calculated from data obtained from grossly visible in vivo tumors, such as the size of Wilm's tumor,[4] or neuroblastoma[5] of surgical specimens or measurable tumors of the lung[6] or breast[7] on x-ray films.

The data on growth rate of tumors in humans are relatively sparse because of two principal limitations. First, the number of sites in the body at which multiple tumor measurement can be taken is strictly limited to those which occur superficially and those which can be clearly defined on the x-ray films. Second, there are only selected cases with conditions which justify the delay of treatment during the observation period. In 1966, Steel and Lamerten[8] reviewed the published literature on the growth rate of tumors in man and concluded that only in tumors of the lung are the data sufficiently good to make any deductions about the growth equation. In addition to cell loss from shedding or necrosis secondary to nutrient limitations or both, the fact that a tumor is a heterogenous population and may be composed of different

Knowledge of tumor growth rate is important to the understanding of the biology of malignancy. Although data on growth rate of tumors in humans are relatively limited, the author cites six clinically-useful and important concepts and their applications. Dr. Lee is from the Departments of Surgery at Ellis Fischel State Cancer Hospital and Cancer Research Center and the University of Missouri School of Medicine.

strains of cells with different growth rates is well accepted. Exponential growth is such, however, that the fastest strain in time will dominate and overgrow the slower, so an apparent uniformity will be imposed.

The quantitation of the rates and mathematical patterns of growth is a more precise statement of rate of growth than the descriptive phrases, "rapidly growing" or "slowly growing." Collen[9] reported that it took about one year for a colon tumor to encircle three fourths the circumference of the bowel. This gives a false impression of the rapidity of the growth process of this type of tumor. Welin *et al*[10] presented the only quantitative data on the growth rate of primary tumors of the colon and rectum. They reported that most of the malignant tumors in this site had doubling times in the range of 138 to 1,155 days. This showed that the rate of growth of tumors in this series is considerably slower than for other human tumors on which growth measurements have been made.

In order to bring out the potential usefulness and practical applications of the growth rate concept, many fine points and complicated mathematical models have purposely been omitted. In the following discussions, two assumptions are made which simplify the growth rate study: (1) a specific rate of growth is a characteristic of an individual tumor; (2) the growth rate of a particular cancer in an individual patient is fairly constant during the entire lifetime period of the cancer process.

A. *Estimating the Time of Tumor Induction or Incubation*

The discussion that trauma may be a cause for cancer or an aggravating agent for the accelerated growth and spread of existing cancer is an old one. Some of the criteria listed by Mulligan,[11] which need to be met to substantiate such a claim, are the elapse of proper time interval between receipt of injury and the appearance of tumor or proof that the rate of growth of the cancer significantly exceeds that observed and established for cases of the same type of cancer in which trauma is not implicated. The objective scientific knowledge of such biological behavior of tumors in man awaits more extensive growth rate studies.

For tumors in childhood, such as Wilm's tumor, one can assume their origin is from the time of conception of the fetus. Collins *et al*[2] hypothesized that cancer arises from a single neoplastic cell. This theory has no definite proof but seems logical at the present time. If the growth rate and size of the lesion are known, it often is possible to estimate the time of inception of that particular tumor within certain statistical limitations. Spratt[12] studied two cases of chondrosarcoma. Based upon the observed doubling time and the measured size of the tumor, it was estimated that the duration of the tumor was greater than the postnatal age of the patient. This evidence supports the concept that the tumor was, indeed, congenital.

In other types of cancer, the practice of extrapolating assumed growth curves to deduce the time of tumor induction is beset with many pitfalls. Steel and Lamberton[8] showed that there may be the error of a factor of two or more in the estimation of silent (presymptom) intervals. Summers[13] suggested that tumor growth depends on and is limited by the available volume of capillary bed. The evidence, so far, suggests a slight slowing of growth rate as the tumor becomes larger. Extrapolation of the terminal portion of the curve would give a somewhat longer silent period. From a practical point of view, the argument about the exact length of the "silent period" is purely academic but useful. Clinically, the discovery of any test or method capable of diagnosing the presymptomatic stage of the disease process (such as asymptomatic carcinoma is situ of the grossly normal uterine cervix diagnosed by Papanicolaou smears) is very important.

B. *Planning the Time Interval Necessary to Conduct Repeated Examinations*

The basic rationale which makes cancer screening tests and posttherapy follow-up examinations justified is the assumption that certain cases of cancer can be discovered in the early stages. In order to insure that the patient derives the maximum possible benefits from his participation and that the physician's time is not consumed by unnecessary patient visits, the frequency of such screening and follow-up examinations needs to be properly spaced.

The rates and patterns of growth of 375 tumors of the colon and rectum were observed serially by the air contrast barium enema technique.[10] On the linear scale, the growth rate ranges from 0.003 mm to 0.025 mm/day and on the exponential scale, the growth constants varied from 0.0003 to 0.0025. The error of diametric measurement by this technique is two millimeters. Even the fastest growing colon cancer required more than 100 days to increase its diameter by 2.5 millimeters. Consequently, it is believed that air contrast enema studies should not be performed more often than every 100 days for follow-up of even the most rapidly growing tumors.

Weiss *et al*[14] studied the growth rate of solitary and peripheral bronchogenic cancers discovered during the Philadelphia Pulmonary Neoplasm Research Project. There were 6,137 male volunteers aged 45 years and over enrolled during a period of four years, and each man was observed for at least ten years. Since abnormal opacities ordinarily are not recognized roentgenographically when the diameter is less than 1 cm,[6] in order to detect the lesion initially and to diagnose the growing lesion as cancer when its diameter is 1 cm and increases to 1.26 cm (only one volume doubling), the x-ray interval must not exceed the doubling time. Since half of the doubling times recorded for 93 bronchogenic carcinoma patients reported in the literature are less than three months and three fourths are less than six months, this means that if lung cancer is to be detected soon after it reaches roentgenographic visibility, the interval between serial chest films must be less than six months in the majority of cases. Whether or not such a program would improve the cure rate remains to be determined.

There is a report challenging the advice that women should have a cervical Papanicolaou smear annually. McCaughey and Dale[15] have reviewed the 15-year experience of the Cancer Detection Center in Detroit. Their yield of proven cancer among patients seen for the first time from 1960 through 1964 is about ten per 1,000. Each cancer detected cost about $500 in pathologist fees. Among 7,764 women having their second or subsequent Pap smears, only nine cancers were detected in the five-year period. Each of these cancers cost $4,200 to detect. Their conclusion was that it would seem reasonable and safe that after a woman has had two normal annual Pap smears, she might possibly forego her third Pap smear for several years. Boyes *et al*[16] demonstrated that the average duration from carcinoma *in situ* to invasive carcinoma of the cervix was 17 years. It is certainly conceivable that the growth process might be similar or even slower for the cervical epithelial cells prior to their dedifferentiation into carcinoma *in situ* stage.

C. *Helping Select the Best Nonsurgical Therapy From Various Modes of Treatment*

The need for a rapid and reliable method of selection of hormonal or chemotherapeutic agents or both in the treatment of advanced cancer is obvious. A logical approach is to develop a precise method to quickly determine changes in tumor growth rate in response to specific therapy. Since DNA synthesis (reflected by the incorporation of P^{32}) parallels the rate of cell division, Herter *et al*[17] have reported an ingenious method.

Miniaturized Geiger-Mueller counters were implanted into advanced superficial tumors or hepatic metastases of 47 patients. Changes in the pattern of radio-phosphorous incorporation and release from the tumors were tested with the administration of hormones or chemotherapeutic drugs. With one exception, the correlation between the P^{32} test forecast and the subsequent clinical behavior treated by the drug was absolute.

Steel and Lamerton[18] stressed that what is needed in the development of cancer therapy at the present time is a better understanding of the biology of tumors, particularly the kinetics of their growth. Most of the published measurements of tumor growth rate in humans covers a wide range with a median in the region of 60 or 70 days. Theoretically, a tumor can grow slowly in three general ways: (a) with long generation times comparable to the volume doubling time and most cells proliferating; (b) with relatively short generation times, but only a few cells proliferating (a low "growth fraction"); and (c) with a relatively high rate of cell production, but extensive cell loss. In order to predict how a tumor will respond to therapy, it is important to know into which of these broad categories it falls.

Another way to simplify the complex problem of cell population is to divide cells into different compartments.[19] Within the two compartments of proliferating and nonproliferating tumor cells, a certain proportion will be clonogenic, i.e. cells which are capable of indefinite proliferation and which have an enhanced resistance to cytotoxic agents and, also, some cells which are in anoxic states and, thus, more resistant to radiotherapy. If we can better understand the competition between cell production and cell loss, and the mechanisms that can bring resistant cells back into a proliferative and sensitive state after the start of therapy, then we can at least approach the objective of control, rather than obliteration, to many types of human cancer.

We have studied the response of recurrent breast cancer to the administration of hormonal agents. When the tumor is responding to the drug, the growth of the tumor is either arrested or reversed. In the latter case, the rate of decrease is approximately the same as the rate of increase before therapy. When the tumor is not responding to the drug, there is no effect on the growth rate at all. Thus, if the growth pattern of a measurable lesion is known, its response to a new hormonal or chemotherapeutic agent also can be determined within a certain reasonable time. This time interval is short for tumor with fast growth rate and long for the slow growing tumors.

D. *Outlining the High-Risk Period for the Recurrence of Cancer and Predicting Host Survival*

Some basis for assuming that the growth rate of a given tumor is the same before and after recognition is demonstrated by the time of recurrence of Wilm's tumor in childhood. If the tumor had its origin from the time of conception of the fetus, then the period of risk for recurrence would be equal to the age of the patient at the time of the original diagnosis plus nine months.

Cure is achieved when the child reaches the "safe period"—twice the age of the child at the time of diagnosis plus nine months. The validity of this hypothesis was tested by Collins[4] in 340 patients with Wilm's tumor and Knox and Pillers[5] with the study of 126 children with neuroblastoma.

Rubin[20] commented that the selection of five-year survival figures as a reference time for the cure of cancer is not too meaningful and the study of growth rate of tumors in humans offers a less arbitrary basis for establishing the time of a "cure." Since a 1 cm nodule (corresponding to a tumor size after 30 doublings) may be taken as a measure of earliest radiographic or clinical detectability, Schwartz[21] proposed that a period of remission equal to 30 times the doubling time of the primary tumor is required before the malignancy can be labeled as "cured."

In primary lung cancers, Weiss *et al*[22] found a good correlation between growth rate and survival of the host. A man is not likely to survive more than ten volume doublings after the cancer is 1 cm in diameter unless therapy for cure has been achieved. Among 16 men who died, 12 survived only 4.2 to 9.8 doublings.[14] In 118 adults with pulmonary metastases, Spratt and Spratt[23] found that the rates of tumor growth and the duration of host survival both followed a lognormal distribution. An experimental line plotting the change in diameter during 19 doublings of the tumor volume between the limits of roentgenographic distinction (3 mm diameter) and antemortem size (240 mm diameter) has been designated as the "lethal boundary" for untreated pulmonary metastases. If the size of the pulmonary metastases and its growth rate are known, the duration of host survival in numbers of volumetric doubling of the tumor with a 5% probability can be estimated. Using this concept, Spratt and Yuen[24] showed that retroperitoneal lymph node dissection and resection of pulmonary metastases for testicular cancers favorably influenced the natural course of the disease.

In the cases of locally recurrent breast cancer after radical mastectomy, the intervals from surgery until the appearance of local recurrence are about the same as from surgery until distant recurrence became evident.[25] The mean survival time after the onset of local recurrence in a group who had the recurrence more than five years after initial treatment was 1.9 years. This is about the same as those who had recurrence within two years after mastectomy (1.4 years).[26] This seems to give support to the concept of a "lethal mass." Collins[2] hypothesized that after 40 doublings, a cancer cell (initial size 1,000 cubic microns) would produce approximately one kilogram of cancer tissue. The patient may live beyond this point, but the disease is approaching termination because another five doublings of tumor volume will equal half the weight of a 70 kilogram man.

E. *Correlating With Pathologic and Laboratory Studies*

The clinical usefulness of pathologic diagnosis lies in the correlation of consistent behavior with morphologic appearance. In a study of 22 primary pulmonary cancers, a significant difference was found between the mean rate of exponential growth of adenocarcinomas, epidermoid carcinoma and undifferentiated carcinoma. The latter was most rapid and had more necrosis within the cancer.[27] Weiss *et al*[22] also found that decreasing differentiation was associated with the increasing growth rate, frequency of mitoses, necrosis and metastases, as well as with decreasing host survival time.

In an adult human, there are approximately 5 million red blood cells in a cubic millimeter of blood. This comes to 25 trillion (2.5×10^{13}) in the five liters of blood present in the body. Since the red blood cells have an average life span of about 120 days, the average healthy adult needs to produce about 2.4 million red blood cells per second or 2×10^{11} cells per day.[28] This relatively fixed rate of regeneration of blood has been utilized to check the reliability of the laboratory test. In the computerized laboratory system used at the University of Missouri Medical Center, the computer challenges and rejects reports of hematocrit or hemoglobin which are greater than a previous report by more than 2% or 0.5 gm/100 cc for each hospital day which has passed since the previous determination.[29] The exception to this rule occurs when a blood transfusion has been administered.

Nathan, Collins and Adams[30] have advanced another thesis for differentiating benign from malignant pulmonary nodules by growth rate measurements. Lung lesions with a doubling time of seven days or less were found to be predominantly benign and usually inflammatory. The exceptions to this finding were chorionic and testicular carcinoma and osteogenic sarcoma. Solitary tumors with long doubling times of more than 400 days denoted benignancy. Tumors with doubling times of from 40 to 200 days were usually malignant.

Gershon-Cohen *et al*[31] found that primary breast tumors associated with axillary metastases had an average doubling time of 85 days; those without axillary metastases doubled in an average of 128 days. This result supported the concept that growth rate is an important factor in "biologic predeterminism." In neoplasms of colon and rectum, most adenomatous polyps grow slowly or not at all, and polyps with a pure or mixed villous pattern generally grow with the same rates of growth as cancers.[32] With this latter observation, it is not surprising that villous adenomas become so large and develop invasive caneers so frequently.

F. *A Potential and Possible Lead in the Search for an Effective Treatment for Cancer*

In the book, *Cure for Cancer—A National Goal*, Garb[33] listed the "growth pattern of cancer" as one of the important features of cancer that deserves intensive research. That the growth rates of different kinds of cancer differ widely and that the same general type of cancer often has a growth rate in one patient different from that in another is well known.

Laird[34] used relatively precise mathematical analysis to demonstrate that the rate of cancer growth is not steady: at first it is high (growth progression), but it slows down as the cancer grows larger (growth regression). The exact cause for such growth-rate changes is not known. Both the phenomenon of tumor dormancy[35] and spontaneous regression[36] can be explained as the result of decelerating growth rate toward zero point.

In both human and animal studies, it has been shown that the rate of death from cancer is age specific. The growth rate of transplanted tumor and the number and extent of metastases are inversely related to the age of the animals. The survival rate from prostate cancer is greater as the patient's age increases,[37] and there is a poorer prognosis of carcinoma of the colorectum in persons under 30 years of age.[38] It is hoped that studies might be devised that will decipher the causes of age specific cancer aggressiveness or factors which will account for the age-related differential growth rates.

Therefore, the "search for natural growth-regulating mechanisms is of practical importance because the clinical disease of cancer in both animals and humans, i.e., the systemic illness and death of the host, is limited to the time of the last two or three doublings of tumor size. Thus, for most tumors, a relatively small stimulation of growth-retarding factors might prevent a tumor from reaching the physiologic limit of host survival, with the consequence eliminated, if the delay should exceed the normal life-expectancy of the host."[34]

SUMMARY

The study of tumor growth rate is an important aspect for the understanding of the biology of malignancy. Although the data on growth rate of tumors in humans are relatively limited at present, certain clinically-useful and important concepts and their applications are cited. These include (1) estimating the time of tumor induction or duration of incubation, (2) planning the time interval necessary to conduct repeated cancer detection examinations, (3) helping select the best hormonal or chemotherapeutic agents for treatment, (4) predicting host survival and outlining the high-risk period for recurrence after cancer therapy, (5) correlating with pathological findings and laboratory studies and (6) serving as a potential and possible lead in the search for improved treatment methods for cancer.

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Bi-State RMP Receives $697,981 Renewal Grant

A one-year renewal grant of $697,981 has been awarded to the Bi-State Regional Medical Program by the Regional Medical Programs Service, Department of Health, Education and Welfare for administrative support of planning and operational activities. This brings to $1,895,963 the funds granted to the program since establishment in April, 1967, Dr. William Stoneman, III, program coordinator, announced. Bi-State program is part of a national effort to combat heart disease, cancer and stroke.

The on-going operational activities, for which the renewal grant provides administrative support, are the nursing demonstration unit in acute stroke at St. Louis City Hospital, the comprehensive diagnostic demonstration unit in stroke at St. Louis University Hospital and the region-wide radiation therapy development and support program in Mallinckrodt Institute of Radiology, Washington University.

Dr. Stoneman also announced that three projects submitted to Washington in May were approved, in whole or in part, for operation and planning as soon as funds are available to the Regional Medical Programs Service. This, in turn, depends on Congressional action on 1970 RMPS budget appropriation, now under consideration.

The projects approved are expansion of radiation therapy facilities at St. Louis University to create a center for total cancer care, establishment of a cooperative regional information system for health professionals, and a health program for Pruitt-Igoe residents, main purpose of which is to introduce residents into the health-care system on other than a "crisis" basis.

HUGH S. HARRIS, JR., M.D. *and*
CARLOS PEREZ-MESA, M.D., *Columbia*

Median Rhomboid Glossitis

Case Report

Although the condition is rarely recognized by the practicing physician, median rhomboid glossitis, a benign abnormality occurring on the tongue, has been recognized as an entity since 1914. It can be readily diagnosed on clinical grounds and biopsy of the lesion may be avoided. The authors are from Ellis Fischel State Cancer Hospital where Dr. Harris is a surgeon and Dr. Perez-Mesa is a pathologist. This investigation is partially supported by Public Health Service Grant no. 67015.

Median rhomboid glossitis, a benign abnormality occurring on the tongue, has been recognized as an entity since 1914. It occurs on the dorsal surface of the tongue in the midline immediately anterior to the circumvallate papillae. It is characterized by a well-delineated, ovoid, moderately-firm, slightly raised area with a smooth surface which may be multilobulated. If debris is allowed to collect between the raised portions of the lesion, it may have a white appearance, but usually it is similar in color to the surrounding tongue. Typically the lesion causes no symptoms, although other oral symptoms may attract attention to it.[1] It is said to be "relatively common."[2] According to Halperin,[3] however, its incidence among 2,478 consecutive dental patients was approximately 0.3%. This condition is rarely recognized by the practicing physician.

It is generally accepted as representing a developmental anomaly. According to Arey,[4] the body or anterior two thirds of the tongue is developed from three primordia, which are the two lateral swellings and the tuberculum impar. The two lateral swellings are derived from the first branchial arch, which also forms the mandible. The midline, triangular-shaped, tuberculum impar lies between the posterior aspect of the lateral swellings, as seen in the embryo at four weeks. The base of the tongue is formed from the union of the bases of the second branchial arches, called the copula. The thyroid diverticulum occurs between the tuberculum impar and the copula, resulting later in the foramen cecum. The tuberculum impar lags in development and becomes progressively less conspicious as the lateral swellings increase rapidly in size. It is thought that median rhomboid glossitis represents a residual prominent tuberculum impar which failed to be enclosed by the lateral swellings of the first branchial arch and the copula.

This lesion requires no specific treatment although, due to the lack of recognition and confusion with carcinoma, it has been treated by surgical excision or implantation of radon seeds.[5]

The histology of the lesion is variable. In those cases without superimposed mechanical or bacterial irritation or both, there is no "glossitis" as is misleadingly implied by its name since lack of filiform papillae constitute the basic defect. When inflammation occurs, there is thickening of the mucosa with variable acanthosis and parakeratosis; however, the normal orientation of cells is maintained. In the subepithelial stroma, there is inflammatory cellular infiltration of variable degree.

Case Report

The patient is a 56-year-old white farmer who saw his family physician because of a burning sensation involving his tongue. He had smoked six to eight cigars per day for many years. The only positive finding consisted of a 1.5 × 1.0 cm, raised, irregular, slightly firm mass located in the midline of the dorsum of his tongue immediately anterior to the V produced by the circumvallate papillae. It was surrounded by a smooth, flat mucosa of similar color which was sharply demarcated from the remainder of the tongue (Fig. 1). The lesion was biopsied (Fig. 2) and cytologic smears were taken. No specific treatment was instituted. The patient was seen eight months later, and there had been no change in the appearance of his tongue.

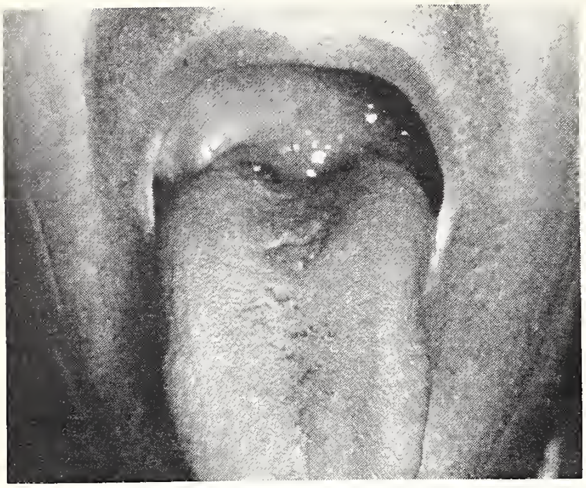

Fig. 1 Median rhomboid glossitis. Typical lesion on midline of dorsum of tongue.

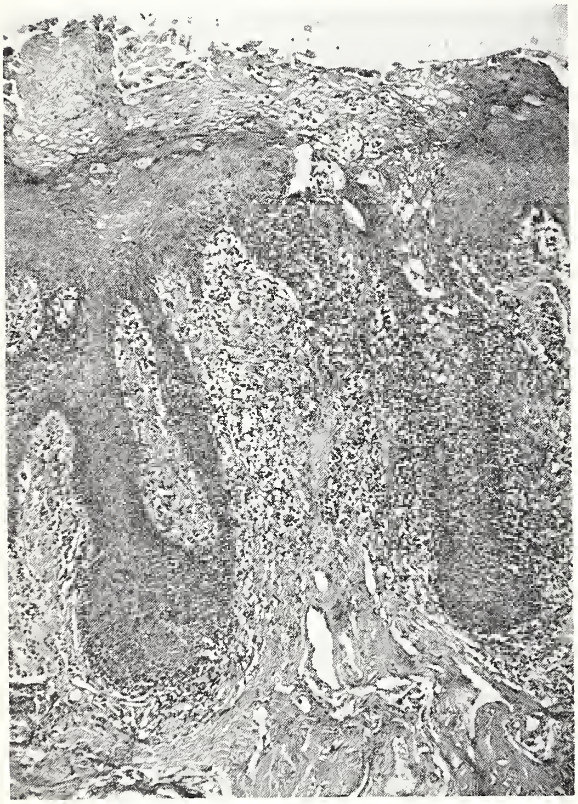

Fig. 2 The epithelium is irregularly thickened; there is acanthosis and parakeratosis. There is dense inflammatory infiltrate in the subepithelial stroma extending through the epithelium. (×200).

Median rhomboid glossitis is of importance only because of its possible confusion with carcinoma. Martin,[5] in his classic paper on the subject published in 1938, comments that there had been no instance of a malignant growth arising in the midline dorsum of the tongue in the 2,000 cases of carcinoma of the tongue seen at Memorial Hospital in New York up until that time. Moore,[6] in a study of the anatomical locations of oral carcinoma, indicated no instances of primary carcinoma of the tongue occurring in this area in the 461 oral cancer patients in his study. The Russian literature[7] reports, perhaps, the only instance in which malignancy developed in median rhomboid glossitis. The patient was a 56-year-old farmer, a heavy smoker who had a biopsy from a lesion with the clinical characteristics of median rhomboid glossitis which was reported as inflammation. A few months later, a second biopsy from the same area showed changes which were interpreted as carcinoma. The patient had local excision followed by radon seed implants. One year later, he was free of symptoms. However, no illustration of the clinical or pathological material was printed.

Because of its typical appearance and unique location, median rhomboid glossitis can be readily diagnosed on clinical grounds and biopsy of the lesion may be avoided. It is recommended that a Pap smear be obtained if reassurance of the benign nature of the lesion is necessary.

SUMMARY

Median rhomboid glossitis represents a developmental anomaly characterized by a typical lesion located on the dorsum of the tongue in the midline immediately anterior to the circumvallate papillae. Diagnosis can be made on clinical grounds and cytological examination. Patients having this entity can be reassured in regard to its benignacy and no treatment is indicated.

Acknowledgement: The authors express their gratitude to P. Blair Hostetler, Ph.D., from the Department of Geology, University of Missouri, for the translation of the Russian reference.

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Intravenously-Administered Methotrexate and Radiotherapy in the Treatment of Advanced Lesions of the Oral Cavity and the Pharynx

A REPORT on the toxicity of one schedule of orally-administered methotrexate (MTX) used in the treatment of advanced squamous cell carcinomas of the oral cavity and the pharynx has been published previously in MISSOURI MEDICINE.[1] The response and toxicity exhibited by 40 patients was reported. Since then, 38 other patients have received methotrexate intravenously, followed by radiotherapy. This paper discusses the toxicity produced by intravenously-administered methotrexate as compared with the oral schedule.

One patient had a rhabdomyosarcoma that metastasized to the neck, the primary lesion unknown; the remaining 37 patients who received methotrexate intravenously had advanced epidermoid carcinoma with primary tumors in the oral cavity, the oropharynx and the hypopharynx, with or without cervical metastasis. Baseline studies including hematology, renal function tests and liver profile chemistry were taken prior to the administration of the drug.

The dose schedule consisted of administration of 25 mg of methotrexate administered intravenously and repeated every third day for a total of five doses (125 mg). Before each subsequent dose was given, clinical and laboratory investigations were made searching for evidence of toxicity. If toxic signs developed, laboratory tests were repeated and methotrexate was discontinued according to the laboratory reports. The parameters of toxicity were listed in the previous report, i.e., "severe" if the white blood cell count was 2,000 or less or the platelet count was 100,000 or less. It was felt to be "moderate" if the WBC count was depressed to a level between 2,000 and 4,000 and the platelet count to a level between 100,000 and 200,000. (The values of 4,000 and 200,000 were considered abnormal only when initial and repeated counts were consistently higher prior to the development of lower persistent values.) The presence of mucositis (oral epithelitis), skin rash, gastrointestinal cramps or sore throat was interpreted as evidence of "mild" toxicity inasmuch as the next dose of methotrexate was withdrawn immediately after the appearance of any of the signs or symptoms or both, and improvement was rapid. (Case # 48 represents the only exception to prompt recovery; this case will be discussed later.)

The schedule of dosage is shown in Table 1. Fourteen patients developed toxicity prior to the completion of the full methotrexate course, while 24 patients (63%) received the full course of treatment. Of these 24 patients, nine did not show any toxicity, while 12 developed toxicity after completion of the course (Table 2). Table 3 shows that more than half of the cases manifested a single toxic sign or symptoms, while about one-fourth of the cases showed several toxic signs and symptoms. Toxicity, as manifested by depression of the white blood cells or platelets alone, occurred in only 7% of the pa-

TABLE 1

SCHEDULE OF DOSAGE

Days	*Cumulative Dose* MG	*No. Cases*	
1	25		
2			
3			
4	50	2	
5			
6			
7	75	5	
8			
9			
10	100	7	14/38 = 37%
11			
12			
13	125	24	24/38 = 63%
Total		38	

TABLE 2

OCCURRENCE OF TOXICITY

Toxicity at completion	3	
Toxicity after completion	12	
No toxicity	9	9/38 = 24%
Total—full course completed	24	24/38 = 63%
Total patients treated	38	

TABLE 3

TOXIC SIGNS OR SYMPTOMS

	I.V.	*Oral*
Single toxic sign or symptoms	20/38:53%	17/40:42%
Several toxic signs or symptoms	9/38:24%	18/40:45%
No toxic signs	9/38:24%	5/40:13%
White blood cells and platelets alone	3/38: 7%	14/40:35%
Blood plus other signs	6/38:15%	23/40:57%
Signs alone other than blood	9/38:24%	12/40:30%
Mucositis alone or combined	11/38:28%	7/40:17%
Rash alone or combined	4/38:11%	6/40:15%

TABLE 4

DEGREE OF TOXICITY

	I.V.		*Oral*	
Severe toxicity	11	11/38 = 27%	18	18/40 = 45%
Moderate	9	27/38 = 73%	7	22/40 = 55%
Mild	9		10	
None	9		5	
Total	38		40	

TABLE 5

BLOOD RECOVERY

	I.V.	*Oral*
Less than 10 days	15/17:88%	14/25:56%
10-20 days	2/17:12%	10/25:40%
More than 20 days	0	1/25: 4%
Total drive	17*	25

* Three patients not included: 2 did not have follow-up counts; 1 died after fourth dose with inability to recover from blood toxicity.

tients. Mucositis was present in 28% of the cases, while rash alone or combined with other findings was less common and was found in only 11% of the cases.

Severe toxicity was present in 27% of the cases, while moderate, mild or no toxicity at all was present in 73% of the cases (Table 4). Low platelet counts were noted to occur for as long as seven days after the last dose, and low white blood cell counts were noted to occur even after the eighth day following the last dose of methotrexate when toxicity developed. Severe and moderate toxicity developed in 20 patients. As shown in Table 5, recovery from blood toxicity occurred in less than ten days in 15 patients, while two patients recovered on the eleventh or twelfth day. Recovery from blood toxicity could not be evaluated in three other patients because two of them did not have sufficient follow-up blood counts. One patient died of aspiration pneumonia (Case # 48) eight days after the fourth dose. The fifth dose was not administered to him because of the appearance of mucositis. His blood count was normal then, but it began to decrease five days after the last injection of methotrexate and never recovered. This patient had epidermoid carcinoma of the cervical esophagus with complete obstruction.

From our previous report of the oral administration of methotrexate, 13 of the 40 patients (33%) did not develop toxicity prior to the administration of the last dose (Table 6). In comparison, 24 of the 38 patients who received methotrexate intravenously (63%) received the full course of intravenous treatment without any sign of toxicity prior to the last dose. Of the 13 patients who received oral treatment, five (13%) never developed toxicity even after the termination of the treatment. In the intravenous cases, nine patients (24%) never manifested toxicity.

TABLE 6

DOSE TOLERANCE TO MTX IN RELATION TO ROUTE OF ADMINISTRATION

Route	*Total Cases*	*Cases With Incomplete Dose* NO.	%	*Cases With Full Course Completed* NO.	%	*No Toxicity* NO.	%
Oral	40	27	67	13	33	5	13
I.V.	38	14	37	24	63	9	24

The occurrence of a single toxic sign or symptom was present in more than half of the patients treated with intravenous administration of methotrexate (Table 3), but this occurred in only 42% of the previous oral group. Mucositis appeared more frequently (28%) when the drug was given intravenously; this can be contrasted to 17% when it was given orally.

While 45% of the patients in the oral group had severe toxicity, in the intravenous group only 27% of the patients presented severe toxicity (Table 4). Recovery from toxicity occurred in less than 10 days in 88% of the intravenous cases and in 56% in the oral cases. Twelve per cent had a duration of recovery extending beyond ten days in the intravenous group compared to 44% in the oral group (Table 5). The clinical stage in the TNM classification (Table 7) of the 38 patients included in this study shows the advanced stage of the lesions treated. As of September, 1969, half of the patients have died. Tumor regression was graded as "good" when more than 50% of the lesion disappeared, "moderate" when only 50% of the lesion regressed and "slight" when less than 50% of the tumor regressed (Table 8). Tumor regression after oral administration of methotrexate alone was slight to good in 72% of the cases, compared to 55% of the cases in the intravenous route for methotrexate alone. Further tumor regression was noted when radiotherapy followed the methotrexate administration. In the oral group, a slight to good regression was noted in 77% of the cases, while the intravenous group showed a 73% response. It appears that there is no significant difference in tumor regression between the oral and intravenous groups, and no serious interpretation of Table 2 is justified. The two groups of patients are different, and the series are too small for any useful clinical judgment concerning early differential tumor regression produced by the two types of schedules. Long survivals or more observations or both are required to decide if one route of administration is more effective than the other. Further tumor regression after radiotherapy was noted in both groups, as expected. Weight loss (Table 9) ranging from five to less than 20 pounds was noted in 61% of

A national clinical study is being conducted to determine the effectiveness of combined methotrexate and radiotherapy in the treatment of advanced carcinomas of the head and neck. This paper compares toxicity produced by the intravenous route of administration of the recommended dose of methotrexate to the toxicity produced by the oral administration schedule, which was reported in a paper published in MISSOURI MEDICINE in November, 1968. The authors are from the Ellis Fischel State Cancer Hospital.

TABLE 7

DISTRIBUTION OF CASES BASED ON TNM CLASSIFICATION

	N_0	N_1	N_2	N_3	*Totals*
T_0*				4/7 (1)	4/7 (1)†
T_1				2/2 (0)	2/2 (0)
T_2	1/2 (0)	1/1 (0)			2/3 (0)
T_3	4/8 (0)	2/6 (0)	0/2 (0)	1/5 (0)	7/21 (0)
T_4			1/1 (0)	3/4 (0)	4/5 (0)
Totals	5/10 (0)	3/7 (0)	1/3 (0)	10/18 (1)	19/38 (1)

* T_0 stands for primary unknown or controlled.

† The first of the three numbers is patients dead; the second figure represents the number of cases; and the number between parentheses is the M_1 of the group (distant metastasis).

TABLE 8

TUMOR REGRESSION

	Oral				*I.V.*			
	MTX ALONE		MTX + RT		MTX ALONE		MTX + RT	
Good	17	29/40:72%	25	31/40:77%	2	21/38:55%	13	28/38:73%
Moderate	4		3		3		7	
Slight	8		3		16		8	
None	6		1		16		9	
Unknown	5		8		1		1	
Total	40		40		38		38	

TABLE 9

WEIGHT LOSS

Pounds	*I.V.*		*Oral*	
>20	0		5 (2)*	
10 to <20	11 (8)		6 (4)	
5 to <10	12 (6)	23/38:61%	5 (2)	16/40:40%
No weight loss	8 (4)		24 (5)	
Weight gain	7 (1)	15/38:39%	0	24/40:60%
Total cases	38 (19)	19/38:50%	40 (13)	13/40:32%

* Numbers in parentheses are cases dead.

the cases in the intravenous group compared to 40% in the oral group. The difference would appear to be related more to the number of cases in which the location of the treatment or the lesion itself prevents adequate oral intake than to the route of administration.

Summary

Thirty-eight patients with various lesions of the oral cavity and the pharynx received combined treatment with intravenous administration of methotrexate followed by radiotherapy. Compared with the oral route, it appears that about twice as many patients could tolerate the intravenous route with fewer signs and symptoms of toxicity. A faster rate of recovery from the toxicity was noted in the intravenous group. Tumor response, as manifested by regression in size, cannot be compared with the material available in either series; as expected, both groups manifested further tumor regression when radiotherapy was added to the regimen. Weight loss was more apparent in the intravenous group, but this would seem to be related more to the type and site of the lesion and its effect on the oral intake than to the route of administration of the chemotherapeutic agent itself.

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Listing of Sources of Short-Term Training for Laboratory Workers

The Laboratory Consultation and Development Section of the National Communicable Disease Center is compiling a list of organizations which offer short-term training for persons working in clinical and public health laboratories. Academic training for full-time students will not be included. When completed, the list will be made available to all individuals interested in continuing education for medical laboratory personnel. The compilation will serve to alert training coordinators, supervisors and prospective students to the existence of many little-known sources of short-term training, some at no cost to the student.

Companies, professional associations, individuals and schools who desire to furnish information for inclusion in the listing should write: National Communicable Disease Center, Attention: Mr. John H. Krickel, Education Specialists, Laboratory Division, Atlanta, Georgia 30333.

No information will be included in the published list without prior clearance from the organization or individual offering the training.

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A Coding Technique for Detecting 30 Diseases of the Skin

A Study

THIS PRESENTATION describes a new means for establishing a presumptive diagnosis for 30 different skin diseases. The method requires only the ability to make accurate observations of simple phenomena. Because it does not depend on an understanding of dermatology or medicine, it may be used by an office nurse charged with the responsibility of *screening new patients* before their examination by a physician. This is done to save the physician's valuable time. The rationale for such division-of-labor is the same as that which today permits paramedical personnel to record weight and height for the detection of abnormalities but not for the diagnosis of obesity or malnutrition and dwarfism or giantism.

The selected diseases were chosen because they occur most often in single locations and are nonacute. The present list may be expanded to include all skin diseases or altered to permit similar activities for other human tissues. The system has been adapted for presentation on a cathode ray tube coupled to a computer, although paper alone may serve, as evidenced by the following description.

METHODS AND MATERIALS

Eight descriptor categories were selected on the basis of their independence of each other in order to make discrimination easiest for the observer (Table 1). Each descriptor category was then subdivided and numbered to permit coding the resultant observations (27 multichotimous signals resulted).

Using an eight-digit numerical symbol—each digit representing one descriptor category—one might derive 158,760 different numerical symbols for the 30 diseases (30 × 2 × 4 × 3 × 7 × 2 × 3 × 3 × 3). Obviously, not every possible combination would have significance. Therefore, this total far exceeds the expected.

In order to reduce the number of symbols to those with clinical meaning, five physicians with a combined experience of 20 years of postdoctoral training in dermatology were requested to deliberate about each of the 30 diseases and then code each disease using the eight descriptor categories. The physicians agreed unanimously on 32.5% of the descriptor categories

TABLE 1

DESCRIPTOR CATEGORIES WITH NUMBERED SIGNALS

A. Count per site	
Single	1
Multiple	2
B. Elevational contour	
Level with skin	1
Elevated (mesa-like)	2
Elevated (hemisphere)	3
Elevated (pedunculate)	4
C. Topical contour	
Round	1
Irregular	2
Oval	3
D. Color	
Same as skin	1
White	2
Tan	3
Brown	4
Red	5
Blue	6
Black	7
E. Contrast of border	
Distinctive	1
Indistinctive	2
F. Configuration of border	
Smooth	1
Undulating	2
Jagged	3
G. Surface	
Same as skin	1
Smoother	2
Rougher	3
H. Rheology	
Same as skin	1
Softer	2
Harder	3

A B C D E F G H
☐ ☐ , ☐ ☐ , ☐ ☐ , ☐ ☐

TABLE II

11,11,11,12 = 27
11,14,11,11 = 13
11,15,11,31 = 08
11,16,11,11 = 15
11,22,12,21 = 06
11,22,13,33 = 06
11,23,12,11 = 12
11,24,12,11 = 13
11,24,13,11 = 12
11,25,11,11 = 21
11,25,12,11 = 21
11,25,12,11 = 21
11,25,12,31 = 30
11,25,13,11 = 21
11,25,13,33 = 30
11,26,22,11 = 23
11,27,11,11 = 13
11,31,11,13 = 17
11,35,11,23 = 07
11,35,12,21 = 30
11,36,11,11 = 15
12,11,11,13 = 20
12,15,11,33 = 07
12,15,12,23 = 08
12,21,11,23 = 19
12,21,21,13 = 26
12,22,12,33 = 07
12,22,13,13 = 06
12,23,23,31 = 16
12,24,21,31 = 16
12,24,22,33 = 16
12,25,12,32 = 04
12,25,12,33 = 29
12,25,13,33 = 10
12,25,23,32 = 24
12,26,12,12 = 22
12,31,11,23 = 09
12,31,12,33 = 09
12,31,21,13 = 29
12,33,21,13 = 17
12,35,12,33 = 09
12,36,11,13 = 15

13,11,11,12 = 02 OR 11
13,11,11,13 = 02 OR 11 OR 29
13,11,11,33 = 04
13,11,21,13 = 02 OR 11
13,12,21,23 = 09
13,13,12,11 = 14
13,13,12,33 = 04
13,14,11,11 = 14
13,14,11,32 = 24
13,14,11,33 = 24
13,14,21,13 = 17
13,15,11,22 = 24
13,15,12,33 = 10
13,15,21,13 = 22
13,15,21,13 = 26
13,15,21,32 = 24
13,15,21,33 = 29
13,16,21,13 = 26
13,21,21,12 = 27
13,21,21,23 = 19
13,22,12,33 = 10
13,23,12,33 = 04
13,23,23,33 = 07
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13,24,21,33 = 09
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13,31,11,12 = 27
13,31,11,13 = 11
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14,31,11,12 = 18
21,13,12,11 = 12
21,21,22,31 = 05
21,22,12,13 = 06
21,22,12,33 = 05
21,23,12,11 = 12
21,25,12,11 = 21
21,25,13,33 = 28

21,33,12,11 = 12
22,12,11,23 = 03
22,14,11,33 = 01
22,15,11,21 = 23
22,16,11,13 = 25
22,22,12,33 = 06
22,23,23,33 = 05
22,24,13,33 = 01
22,24,23,11 = 28
22,25,13,33 = 07
22,25,21,33 = 28
22,25,22,31 = 25
22,25,23,32 = 28
22,25,23,33 = 05
22,26,11,33 = 25
22,33,12,32 = 01
22,36,22,11 = 25
23,11,11,11 = 14
23,11,11,12 = 27
23,11,11,13 = 03
23,11,11,23 = 02
23,11,21,11 = 20
23,11,21,12 = 20
23,12,11,22 = 03
23,12,21,13 = 03
23,13,22,33 = 28
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23,14,11,13 = 14
23,14,11,31 = 13
23,15,11,22 = 23
23,15,11,33 = 23
23,21,11,33 = 03
23,23,23,33 = 05
23,24,12,33 = 01
23,26,12,23 = 25
23,31,11,12 = 27
23,31,11,13 = 17
23,34,11,23 = 19
24,11,11,12 = 18
24,11,11,13 = 20
24,21,11,12 = 18
24,23,11,12 = 20
24,33,21,12 = 18

01 SEBORRHEIC KERATOSIS
02 KERANTINOUS CYST
03 MILIA
04 KERATOACANTHOMA
05 SENILE KERATOSIS
06 LEUKOPLAKIA
07 BOWENS DISEASE
08 PAGETS DISEASE
09 BASAL CELL CARCINOMA
10 SQUAMOUS CELL CARCINOMA
11 DERMOID CYST
12 LENTIGO
13 JUNCTION NEVUS
14 COMPOUND NEVUS
15 BLUE NEVUS
16 MELANOCARCINOMA
17 DERMATOFIBROMA
18 ACROCHORDON
19 KELOID
20 NEUROFIBROMATOSIS
21 NEVUS FLAMMEUS
22 CAVERNOUS HEMANGIOMA
23 SENILE ANGIOMA
24 GRANULOMA PYOGENICUM
25 KAPOSIS SARCOMA
26 GLOMUS TUMOR
27 LIPOMA
28 MYCOSIS FUNGOIDES
29 DERMATOFIBROSARCOMA PROTUBERANS
30 QUEYRATS ERYTHROPLASIA

and 80% agreed on 64% of the descriptor categories. Had 100% agreement occurred on all descriptor categories for all 30 diseases, 30 numerical symbols would have resulted. Such unanimity among five physicians would be startling. When the responses were computed, 130 different numerical symbols resulted—a number not too great to be useful and, yet, sufficient to represent enough divergent opinions to be nearly all-inclusive.

In only four instances did the physicians combine the *same descriptor signals for more than one disease*. In each combination, they labeled keratinous cyst and dermoid cyst identically. One physician also gave an identical symbol to dermatofibrosarcoma protuberance. Apparently, the chosen descriptors are not good as discriminators between these two types of cysts in the judgment of the majority of these physicians who were tested or between these cysts and dermatofibrosarcoma protuberance in one man's judgment. Providing that this deficiency is recognized, the system remains useful when one remembers it is designed to produce only a *presumptive* diagnosis.

The eight descriptors were chosen for human adaptation. If one were to build a machine to serve the same function, a different—and, perhaps, better—set of descriptors would be appropriate.

Application of the Technique

The user who wishes to evaluate the system's effectiveness may do so by following these steps:

1. Make a careful inspection of the skin disease under consideration.
2. Determine the appropriate numerical signal for each descriptor category from Table 1.
3. Write the numerical signal in the spaces at the top of Table 2, placing category A in box A, category B in box B, etc.
4. Read the numerical symbol just entered; locate the matching numerical symbol among those listed on Table 2.
5. Take the resulting code number at the right of the equalization sign and locate its identifying diagnostic name in the list at the bottom of Table 2.

The coding technique described in this study presents in numerical form descriptions of 30 skin diseases. The descriptors were chosen by five physicians trained in dermatology to make it possible for the office nurse to screen new patients before their examination by the physician, thus saving valuable time for the physician. The system is a preliminary model for testing, and the author invites interested physicians to cooperate in this evaluation. Dr. Cook is Chairman, Department of Applied Medical Engineering, The Cancer Research Center. This investigation was supported in part by PHS Research Grant CA-08023-05 of the National Cancer Institute.

If the numerical symbol derived from the observation of the skin disease is not listed in the table, one may conclude that (1) the observation is inaccurate, (2) the disease is other than those listed or (3) a unique variation of one of the listed diseases has been found which is beyond the dermatologic experience of the compilers. Under such circumstances, the traditional methods of dermatologic diagnosis must be employed.

Discussion

This system should be recognized as a preliminary model for testing. As experience is gained in its use, it will be improved. Operational testing is planned for the outpatient clinic of the Ellis Fischel State Cancer Hospital. Others who wish to cooperate in this evaluation are invited to do so by contacting the author.

Acknowledgement: The author wishes to express appreciation to Dr. Malcom McGavran and the dermatology residents at Barnes Hospital in St. Louis for collaborating in this study.

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The American College of Physicians (ACP) will hold a five-day postgraduate course on "Function and Dysfunction of Gastrointestinal Tract" on Jan. 2-6, 1970 in Bal Harbour, Fla. The course, being held in cooperation with the University of Miami School of Medicine, will be held at the Americana Hotel. It is one of 25 postgraduate courses the ACP is conducting throughout the United States and Canada during the 1969-1970 academic year to help specialists in internal medicine keep abreast of new knowledge and techniques in the diagnosis and treatment of diseases.

LESTER S. GARFINKEL, M.D., ***Columbia***

Acute Leukemia, 1969

A Review

Twenty-two years ago, in the dawn of the chemotherapeutic era, Farber and associates first demonstrated that leukemia in childhood was amenable to single agent chemotherapy.[1] Using aminopterin, a folic acid antagonist, they observed dramatic short term remissions in ten of 16 children seriously ill with acute leukemia. The remissions were characterized by the transient return of the peripheral blood and bone marrow toward normal and the disappearance or shrinkage of associated solid tumefaction in enlarged lymph nodes, liver, spleen and nonhematopoietic tissue. In subsequent clinical trials, aminopterin was displaced in favor of a closely related, but somewhat less toxic, folic acid antagonist, amethopterin (methotrexate). Farber and his colleagues had instituted these clinical trials with folic acid antagonists after making the clinical observation that folic acid appeared to stimulate the acute leukemic process.

Subsequent to Farber's historic observation, many basic science and clinical investigators have continued to identify, isolate and synthesize many agents which have antileukemic effects. Concomitantly, because of the impracticality of and risks inherent in initially testing new drugs in man, a variety of animal tumor lines and models have been developed in which new compounds can be tested. These reproducible, preclinical screening mechanisms afford the investigator an initially higher degree of selection of drugs that might demonstrate a high probability of clinical benefit.[2] Experimental technology employed in these widely used animal models has contributed immensely to our knowledge of the biochemical mechanisms involved in the cellular uptake of chemotherapeutic drugs, leukemic and solid tumor cell kinetics and the highly important concept of schedule-dependency of drugs active against leukemic and solid tumor cells.

This review is designed to be a progress report of the current status of therapy for acute leukemia in both the child and adult. The author points out that basic and clinical investigation continues to improve existing survival figures and, hopefully, will provide "a cure" for this and all other malignant afflictions of mankind. Dr. Garfinkel is Associate Internist, Ellis Fischel State Cancer Hospital, and Assistant Professor of Medicine, University of Missouri School of Medicine.

In recent years, a number of excellent reviews have been published[3–11] which collectively summarize in detail the advances in the biochemical and pharmacological investigation and the results of many clinical trials which together serve as the basis for the current chemotherapeutic approach to acute leukemia.

In light of the aforementioned published reviews, the ensuing discussion is to be considered only as a progress report of the current status of therapy for acute leukemia in both the child and the adult.

Acute leukemia is classified into the lymphocytic (lymphoblastic) and myelocytic (myeloblastic) types. The lymphocytic variety accounts for approximately 80% to 90% of acute leukemia in children and about 10% to 20% in adults. Myelo-monocytic leukemia (Naegeli's) is included in the myelocytic classification because its response to therapy is the same. This critical morphological separation of acute leukemia into the lymphocytic and myelocytic types is most important from a therapeutic standpoint, inasmuch as the most currently gratifying therapeutic results are being achieved in acute lymphocytic leukemia of childhood.

The therapeutic goal is the induction of a complete and permanent remission. For a patient to qualify for the attainment of a complete remission, by strict protocol criteria, the bone marrow must contain less than 5% "blast cells," the peripheral blood must not have circulating "blast cells" and the white blood cell count, hemoglobin level, hematocrit value, platelet count and differential cell count must be normal or closely approaching normal.

Through the antecedent trial of numerous chemotherapeutic regimens for lymphoblastic leukemia in children, it became apparent that certain drugs which possess excellent properties for the induction of a complete remission, either alone or in selected combinations, were therapeutically ineffective in maintaining the remission which they had induced. On the other hand, certain drugs which effectively maintain induced remissions for variable periods of time proved to be poor inducers of remissions. At present, the drugs considered to be better inducers than maintainers of a remission include prednisone, vincristine (Oncovin), cytosine arabinoside (Cytosar), daunomycin (rubidomycin) and cyclophosphamide (Cytoxan). The best remission maintainers include methotrexate, BCNU(1-3 bis(2-chlorethyl)-1-nitrosurea) and 6-mercaptopurine (Purinethol).

In treatment of leukemia in children, complete remissions can be achieved in approximately 90% to 95% of cases using combination chemotherapy, i.e. prednisone and vincristine. Curiously, neither of these drugs, which are effective lympholytic agents and nonmarrow suppressants, can achieve a 90% remission induction rate alone. Together, however, their synergism affords this gratifying induction percentage.

From increasing technological sophistication in lymphoblastic leukemia cell kinetics in children and the L-1210 murine leukemic animal model, it has been crudely estimated that when a child presents with acute lymphoblastic leukemia, the total body burden of leukemic cells is no fewer than one trillion (10^{12}).[12] Furthermore, from crude premortem and postmortem anatomical observations in children and pre- and postchemotherapy in vivo human and animal kinetic studies, it has been demonstrated that a child can be induced into a complete remission from acute lymphoblastic leukemia and still have a total body burden of leukemic cells estimated to be approximately one million (10^6). Even with this residual number of leukemic cells harboring in such places as the liver, spleen, meninges and the lymphatics of the bowel, the child has no clinical or laboratory sign of his disease. The presence of these residual leukemic cells, however, dictates that the child must be switched from an induction regimen to a maintenance regimen.

The most currently popular maintenance program is the twice-weekly intramuscular injection of methotrexate. The institution of this potent bone marrow suppressant can begin as soon as a remission is achieved with prednisone and vincristine because the remission has been achieved without bone marrow suppression. Twice weekly methotrexate parental therapy permits the use of significantly larger amounts of the drug per unit time. This schedule effectively delays the onset of accumulative drug toxicity which occurs more readily with chronic oral maintenance therapy. The intervening days between injections of methotrexate permits partial to complete recovery of nontumor, normal host tissue from the effects of chemotherapy. More often than not, it is the drug induced toxicity sustained by normal tissues, rather than the complications of the leukemic process itself, that limits optimum aggressive chemotherapy.

Animal model kinetic data have demonstrated that each parenteral pulse dose of methotrexate kills a constant percentage of the residual leukemic cells. Hence, it is theoretically assumed that the residual number of leukemic cells eventually can be reduced to that "critical" number which will be completely destroyed by that "final" injection of methotrexate. Without the "one" residual leukemic cell, a repopulation of the patient with the lethal number of 10^{12} leukemic cells could not occur.

Remissions induced with prednisone and vincristine and followed by maintenance methotrexate currently afford median survivals of 36 to 40 months compared to a median survival of three to four months following diagnosis in 1947, which was the beginning of the modern era of chemotherapy.

Those children who eventually relapse after exhaustive courses of reinduction and maintenance with prednisone, vincristine and methotrexate may very well be afforded further opportunities for a partial to complete remission of their disease by using other drugs having inducing capabilities, namely, cytosine arabinoside, daunomycin and cyclophosamide in decreasing order of preference. The severity of the relapse, with particular reference to critical organ involvement such as the liver, kidneys and brain (leukemic meningitis), will significantly influence the opportunity for remission induction as they do in initial chemotherapy.

The current chemotherapeutic approaches for the induction of remissions in children are undergoing constant scrutiny. Numerous multiple drug combinations with varying schedules of "pulse-doses" are continually being explored in the human and animal model in order to achieve a residual body burden of leukemic cells significantly less than one million (10^6) when a complete remission has been induced. Theoretically, from animal data, it is justifiable to believe that a greater chance for a permanent chemotherapeutic cure will be possible if the maintenance chemotherapeutic regimen can be started when the total residual leukemic cells are, hopefully, no more than 10^1 or 10^2. With a constant percentage of residual leukemic cells being destroyed per "pulse-dose" of the maintenance drug, fewer doses and a shorter period of time should be theoretically required for the maintenance drug to reduce the leukemic cell population to that critical level of "zero" cells. Fewer doses of the maintenance drug would, in addition, lessen the degree of accumulative normal tissue toxicity which may interfere with the continuation of the maintenance program.

Preliminary experience currently is being accumulated with the use of asparaginase, an exogenous enzyme derived from Escherichia coli[13] and certain mammals,[14, 15] in the treatment of acute leukemia, particularly in children.[16–18] The amino acid L-asparagine has been shown to be necessary for the optimal growth of a number of x-ray induced murine leukemias as well as leukemia and lymphomas in dogs and cattle and acute leukemia in man. Asparaginase will inhibit the replication of sensitive leukemic cells in vitro and in vivo, presumably by catalyzing the hydrolysis of L-asparagine in the blood and extracellular fluid.[19] Since asparaginase is a nonsuppressant of bone marrow, it should be ideally suited for use in combination with myelotoxic agents. Only time will tell whether or not this highly specific antileukemic drug will have practical therapeutic effectiveness.

Significant advances in supportive therapy for complications inherent in the disease process or precipitated by drug therapy or both have contributed immeasurably to the increasing survivals in leukemia during childhood.

The availability of platelet transfusions has significantly decreased the thrombocytopenic hemorrhagic deaths that formerly occurred during the period of induction therapy.

The ever-increasing number of potent antibiotics has remarkably decreased the incidence of fatal systemic infection that commonly occurred during periods of maximum drug-induced granulocytopenia or immunological incompetence or both. The technique of harvesting viable and competent granulocytes from normal donors for transfusion into leukemia patients during periods of drug induced granulocytopenia or systemic infection or both is being perfected very slowly.

Diligent use of the xanthine oxidase inhibiter, Allopurinol, effectively prevents hyperuricemia and its attendant renal complications by inhibiting increased purine oxidation to urate, which follows the drug induced destruction of large numbers of leukemic cells.

The more vigorous initial treatment of leukemic meningitis with irradiation therapy directed to the entire neuroaxis together with intrathecal methotrexate, high dose steroids or intravenous BCNU or both has decreased the morbidity of this unpleasant neurological complication. BCNU, a lipid-soluble agent, can cross the blood-brain barrier following intravenous administration.

Lastly, another supportive approach is the administration of chemotherapy while the patient resides in a self-contained, germ-free "Life Island" plastic bubble that encloses the hospital bed. An extension of this approach to the creation of a germ-free environment is the recently developed and more practical laminar-flow hospital room in which the likelihood of patient infection is decreased by a controlled flow of recirculating, ultra-filtered air. The value of providing a germ-free environment remains under investigation.

In nonlymphocytic leukemia in adults, significant advances in chemotherapy have been much slower but not nonexistent. Within the past three to four years, using single or combination agent chemotherapy or both with either cytosine arabinoside, daunomycin and Methyl GAG (methylglyoxal-bis-guanonylhydrazone) or cytosine arabinoside plus 6-thioguanine, the frequency of complete remissions has increased into a range from 25% to 50% of different groups studied.[8, 20] Formerly, when 6-mercaptopurine was considered to be the drug of choice, remission induction was 10% or less. A transient interest in quadruple cyclic chemotherapy for leukemia in adults, using such drugs as vincristine, amethopterin, 6-mercaptopurine and prednisone (VAMP) in varying dose and frequency schedules, produced complete remissions ranging from 20% to 45% but with considerable attendant drug toxicity.[8] Quadruple chemotherapy in adults followed initial excellent successes in children, but has given way in recent years to primarily single or two agent induction chemotherapy.

In treating adults with acute leukemia, unlike children, the induction regimen must initially produce extreme hypoplasia or aplasia of the bone marrow in order to optimally afford the patient a chance for a significant partial or, preferably, a complete remission. This aggressive therapy requires long and often repeated hospitalizations with prompt and efficient use of the aforementioned supportive measures.

The overall median survival from diagnosis to death of 166 adults admitted to the National Cancer Institute from 1955 to 1966 with nonlymphocytic acute leukemia was five to six months.[8] Those individuals fortunate to experience a complete or partial remission had a 50% survival rate of ten and one half months, while those failing to remit had a 50% survival rate of only three and one half months. As in children, prolongation in survival is clearly related to the ability of available therapeutic modalities to induce a remission. Unlike the situation existing in children with leukemia, however, there is no convincing evidence to date that continued chemotherapy during the period of remission prolongs the duration of either the remission or survival.

Diligent basic and clinical investigation continues in concept at this very moment upon existing survival figures in adult and childhood leukemia and, eventually, to provide "a cure" for this and all the other malignant afflictions of mankind.

Acknowledgement: The author wishes to thank Dr. Reginald Pugh for his advice in regard to the preparation of this paper.

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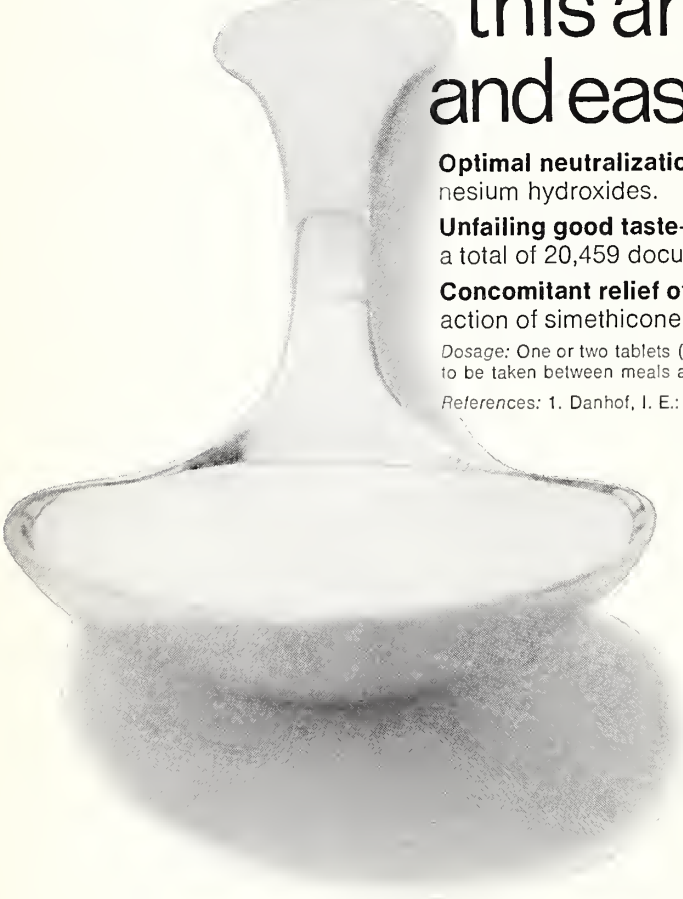
In Memoriam

Sarno, Samuel M., M.D., Morehouse, a graduate of Louisville University, 1937; member of Semo County Medical Society; aged 60; died Oct. 6, 1969.

Meyer, Claude B., M.D., Springfield, a graduate of the National University of Arts & Sciences, 1917; member of Greene County Medical Society; aged 74; died Oct. 20, 1969.

Norton, William H., M.D., St. Louis, a graduate of Washington University, 1922; member of St. Louis Medical Society; aged 73; died Oct. 26, 1969.



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President's Message

As the year draws to a close and we enjoy the many pleasures of the holiday season, it is most appropriate to give serious thought to the importance of supporting the efforts of the Missouri State Medical Foundation (MSMF).

Thanks to the Foundation, which was formed in 1960, approximately 300 worthy students have been able to continue their medical training. Without the aid of the Foundation loans, many of these young people would not have had the financial resources to stay in medical school.

All of the students aided by MSMF are Missourians and almost all attend or have attended medical school in our state. We hope that most of these young people will plan to practice in Missouri—many of them in rural areas and small towns where there is such a great need for physicians.

Although there is an annual assessment of the members of the Missouri State Medical Association to support the loan funds, this does not provide enough money to fill all the needs and should be supplemented by additional donations from individual physicians. I hope that each member of our Association will consider making such a donation now.

Doyle C. McCraw, M.D.

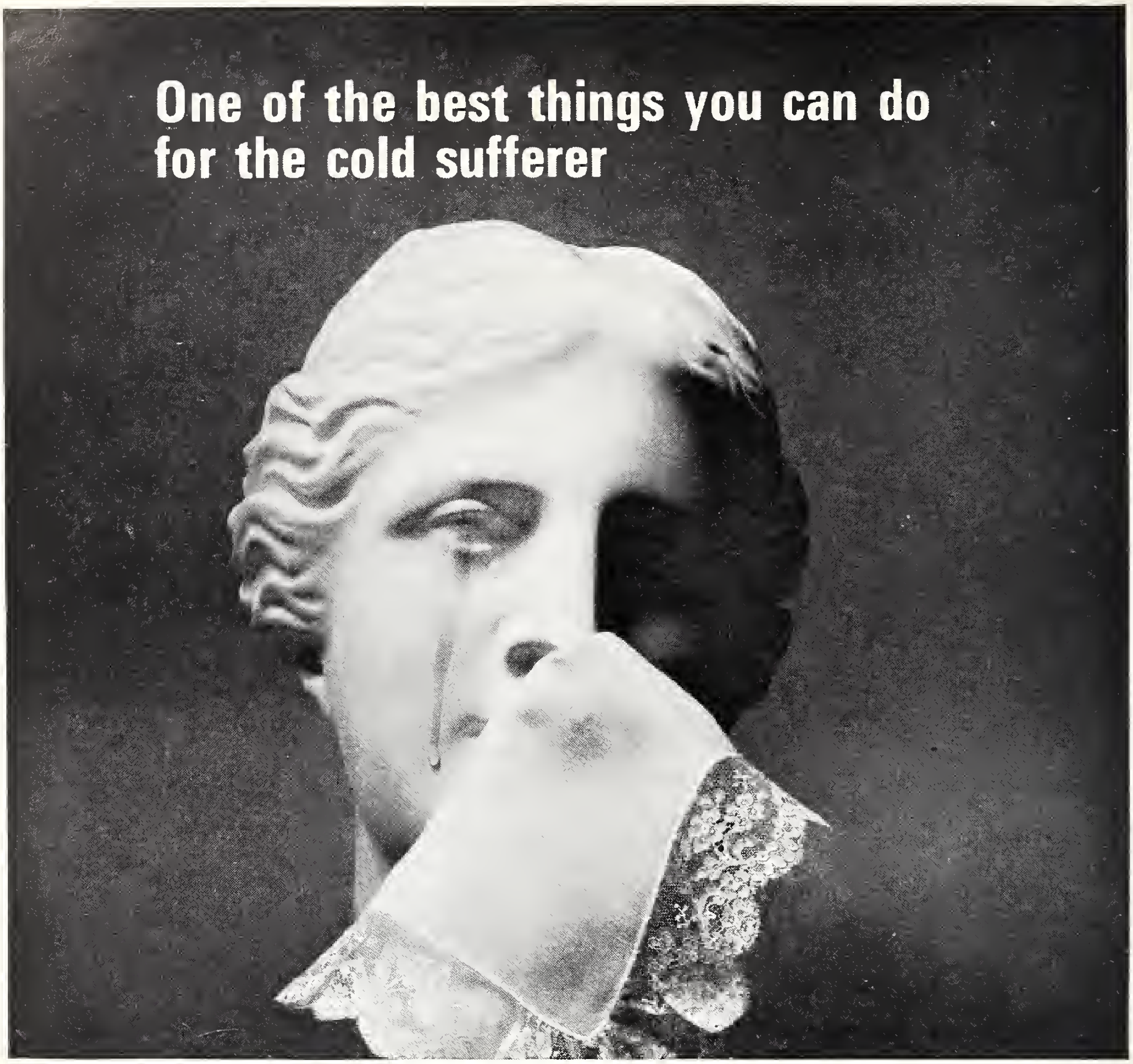
Another source of money for the Foundation should be in the form of memorials for friends and loved ones.

Also, do not overlook the Foundation in your own will and on occasions when you are asked the question by a patient, friend or colleague, "To whom can I leave money that will be used for a great deal of good?"

Gifts to MSMF are tax deductible on both federal and state income tax returns. Since we are so close to the new year, I want to remind you that a contribution to the Foundation before the end of 1969 can be claimed on this year's tax return.

Please send contributions to the Missouri State Medical Foundation, Box 1028, Jefferson City, Mo. 65101.

When you do, you will be serving the student, the public and our profession by making it possible for worthy, dedicated students to continue their medical training.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Woman's Auxiliary

The Annual Fall Conference held in Jefferson City on October 29th and 30th is now a pleasant memory. Mrs. C. Stuart Exon and Mrs. Jack Sanders, co-chairmen, and the Woman's Auxiliary to the Cole County Medical Society made this an interesting and exciting two-day meeting.

"Health Careers" was the subject of concern and was explored in depth by Mrs. Wendell Roller of Monmouth, Ill., National Health Careers Chairman; Mrs. Max Olsen, Minden, Iowa, North Central Regional Health Careers Chairman; Dr. John Walters, Paramedical Careers Committee Chairman of the Missouri State Medical Association; Mr. Don Butzer, Missouri Hospital Association; and Mrs. James S. Key, our Auxiliary State Health Careers Chairman. Ten percent of each graduating class should embark upon training for medical and paramedical careers if the ever-expanding need in this field is to be met.

Mrs. James A. Reid, President

"Children and Youth," chaired by Mrs. Felix Pileggi is a new committee in the Auxiliary this year. Drug abuse was studied in depth by discussion leaders Mrs. Pileggi; Mrs. George Robertson, Omaha, Neb., North Central Regional Children and Youth Chairman; and Miss Marie Williams, Executive Secretary, Little White House Conference. The film, "LSD—Insight or Insanity," was previewed.

It is the hope of the State Auxiliary that the county auxiliaries and members-at-large will promote the two above projects in the local community.

Once again, we come to the season of the year known as Christmas to the Christians or as Hanukkah to those of the Jewish faith. Christmas is celebrated as the Birthday of Christ and the word, Christmas, means Christ's Mass. It is marked by religious services, by the exchange of gifts and by being joyous and merry.

Hanukkah is the Jewish Feast of Lights or Feast of Dedication. It lasts eight days. Some Jews observe this period by lighting a new candle at sundown. By the end of the celebration, eight lighted candles stand together. Other Jews light all eight candles the first evening and remove one candle each day afterward.

To each his own. But let us remember we are "Our Brother's Keeper." Let us radiate joy and happiness in all we do. Let us set aglow the love and devotion that all happy families seem to share at this time of the year.

MERRY CHRISTMAS—HAPPY HANUKKAH!

EDITORIALS

GIVING AND JOY

Christmas is a time for giving and for joy. From the time of the physician Luke, other physicians have been giving of themselves to help those in need. In this day, it would appear that many are not concerned enough with others. This is not true. Many share the concern as do most physicians.

With the giving comes joy. Joy to all of you.

GORDON C. SAUER, M.D.
The Greater Kansas City Medical Bulletin

CLINICAL CARDIAC TRANSPLANTATION*

The first cardiac homotransplant in man by Christian N. Barnard, M.D., on Dec. 3, 1967[1] and 142 subsequent cardiac transplants (as of Aug. 18, 1969) have raised a number of problems now in the process of resolution. These include justification of clinical application, criteria for the selection of recipients, criteria for donors, legal and moral aspects, publicity and the future.

Justification of Clinical Application. Following the first (heterotopic) canine cardiac transplant by Carrel and Guthrie[2] in 1905, there were sporadic reports of cardiac transplants in various species of animals until the late 1950's when concerted animal research on orthotopic transplantation aimed at ultimate clinical application was instituted. This work was facilitated by concomitant laboratory investigations and clinical applications in relation to vascular surgery, transplantation of the kidney and, to a lesser extent, other organs, such as the liver. In 1961, a generally accepted method of orthotopic cardiac transplantation was reported[3] and in 1965, the four- to 21-day survival of dogs with cardiac transplants was extended to one to three months or more in a majority of animals[4] and to more than a year in a few[5] by immunosuppressive measures.

In the fall of 1967, despite the lack of backup of an effective artificial organ, as in renal transplants and the lesser availability of the human heart for transplantation, several leaders in the field considered the state of knowledge sufficient to warrant clinical trial and one investigator formally notified the medical world of his intent to perform clinical cardiac transplantation.[6] However, some medical leaders have questioned the advisability of clinical application until more knowledge of tissue matching and more effective methods of immunosuppression are available.[7, 8]

Of the 143 cardiac transplants, 105 patients died and 38 survived as of Aug. 18, 1969—a mortality of 73%. The longest survival of 594 days was terminated Aug. 17, 1969 by the death of Dr. Philip Blaiberg (a dentist) of South Africa. The next longest surviving patient is Father Charles Boulogne (a French priest) who was 15 months postoperative in August, 1969 and, like Blaiberg, is one of the few patients who have lived comparatively independently of their hospital environments for some months. Dr. Blaiberg died primarily of cardiac rejection, as have most of the deceased patients. Others have died of infection due mainly to the effects of immunosuppressive agents.

Results have varied from one institution to another. Thus, all nine patients of a respected institution died on an average of 68 days postoperative compared with an average survival of 110 days for a similar group of patients not subjected to cardiac transplantation. On the other hand, at another institution, four of 14 patients have lived longer than nine months, whereas none of 11 similar patients not receiving transplants survived longer than three months and the average was only one month. Unfortunately, detailed data concerning all cardiac transplants are not available, but the overall average survival period is approximately 60 days. Nevertheless, the survivals of the two patients named above indicate a future potential for cardiac transplants.

Criteria for the Selection of Recipients. There is general agreement that, for the present, recipients should be less than 60 years of age, without significant noncardiac disease and with cardiac disease not amenable to medical or surgical therapy and of sufficient gravity to warrant a prognosis of death in one to two months. Obviously, such prognoses are fraught with difficulty and uncertainty. Absolute definition of indications and contraindications for selection is not possible at present, although the statement on selection of recipients used by the New York Hospital-Cornell Medical Center is recommended. Potential recipients include patients with severe coronary artery

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* The Missouri Regional Medical Program is supported by a grant from the Division of Regional Medical Programs of the Health Services and Mental Health Administration of HEW. This editorial does not necessarily represent the views of the Division of Regional Medical Programs.

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Warnings: Reduce usual oral dosage and consider antibiotic serum level determinations in patients with impaired renal function.

Use of oxytetracycline during the last trimester of pregnancy, neonatal period and early childhood may cause discoloration of developing teeth. This effect occurs mostly during long-term use of the drug, but it has also been observed in usual short-treatment courses.

During treatment with tetracyclines, individuals susceptible to photodynamic reactions should avoid direct sunlight; if such reactions occur, discontinue therapy.

Note: With oxytetracycline, phototoxicity is unknown and photoallergy very rare.

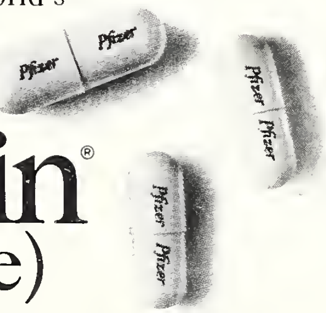
Precautions: Use of broad-spectrum antibiotics occasionally may result in overgrowth of nonsusceptible organisms. Where such infections occur, discontinue oxytetracycline and institute specific therapy. Increased intracranial pressure in infants is a possibility. Symptoms disappear upon discontinuation of therapy.

Adverse Reactions: Nausea, diarrhea, glossitis, stomatitis, proctitis, vaginitis and dermatitis, as well as reactions of an allergic nature, may occur but are rare.

Supply:* Terramycin Capsules: oxytetracycline HCl, 250 mg. and 125 mg. Terramycin Syrup: calcium oxytetracycline, 125 mg. per 5 cc. Terramycin Pediatric Drops: calcium oxytetracycline, 100 mg. per cc.

*All potencies listed are in terms of the standard, oxytetracycline.

More detailed professional information available on request.



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Pfizer **LABORATORIES DIVISION**
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Editorials

(Continued from page 958)

disease involving repeated infarctions or widespread cardiac fibroses or both, patients with certain other cardiomyopathies, patients with certain primary neoplasms of the heart and patients with certain forms of congenital heart disease. Selection of each recipient should be made by a group of physicians who are independent of the transplant team.

Criteria for the Selection of Donors. There is general agreement that donors preferably should be less than 45 years of age, with a normal heart, no disease transmissible to the recipient and death resulting from brain injury, brain hemorrhage or other cause compatible with a normal heart. A flat EEG (with accompanying evidences of neurologic failure) for 24 hours (or less) is now accepted as evidence of death,[9] although some transplant surgeons wait for cardiac arrest or ventricular fibrillation, as well. Again, donor selection should be undertaken by physicians who are completely independent of the transplant team and, also, of the recipient selection group. Obviously, the donor selection group members must be fully cognizant of their grave responsibility in determining the time for removal of the heart.

Legal Aspects. The legal aspects do not offer serious problems, since existing rules of law relative to medical practice afford an appropriate framework for carefully conducted clinical cardiac transplantations, provided that the experimental nature of the procedure is made clear[10] to the prospective recipient and there is adequate explanation of the risks involved. Likewise, the donor's family must be appropriately informed. Fortunately, donation of tissues and organs has been facilitated in the past few years by enactment of the Uniform Anatomical Gift Act in a number of states, including Missouri in 1969.

Publicity. Since cardiac transplantation is still in the realm of clinical research, any report in this field preferably should first be presented to a scientific meeting or published in a scientific journal or both. However, the general public has shown an increasing interest in biomedical research and other medical news in recent years and has willingly supported medical advances through tax monies via the National Institutes of Health (and other government agencies) and through contributions to voluntary health agencies. Moreover, the news media increasingly rely upon science writers of high competence and many excellent reports on biomedical advances have been presented in recent years. Hence, some liberalization in reporting is now a fact and should be accepted by physicians and medical scientists. However, some of the publicity relative to clinical cardiac transplants during the first year transcended the bounds of good taste and accuracy. On the other hand, prompt reporting of the deaths of cardiac transplant patients and related information in recent months has enabled potential patients and the public to develop sounder perspective of cardiac transplantation.

Future. For the next several years, at least, clinical cardiac transplants should be limited to those institutions in the United States and other countries which possess staffs with the necessary operative expertise but, also, with full capability for advancing current knowledge relative to recipient and donor selection, transplantation techniques, the rejection process histocompatibility, tissue tolerance, immunology and immunosuppressive measures. These studies should be conducted as a cooperative effort and should include an International Cardiac Transplant Registry, perhaps under the auspices of the International Society of Cardiology.

Moreover, the recent recommendations of the Board of Medicine of the National Academy of Sciences,[11] the Council of International Organizations of Medical Sciences[12] and the Ad Hoc Committee on Ethics of the American Heart Association[13] constitute excellent guidelines for those whose goal is sound advancement of this clinical field.

In the meantime, research on a clinically applicable artificial heart, on the possibility of xenografts and, even more importantly, on the fundamentals of atherosclerosis and hypertension must continue.

GEORGE E. WAKERLIN, M.D., Ph.D.
Director of Planning
Missouri Regional Medical Program

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County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Buchanan County Medical Society

Forty-eight members attended the annual election meeting of the Buchanan County Medical Society on October 1 at the new Ramada Inn in St. Joseph. The event was the first to be held at the newly-opened Ramada Inn and members were presented a beautiful floral centerpiece and banners proclaiming the event.

Dr. John L. Mothershead, President, presided at the meeting which followed the dinner. Newly-elected officers are President-Elect, Dr. Sharon E. Waggoner; Vice-President, Dr. Lawrence H. Pifer; Secretary, Dr. E. F. Butler; Treasurer, Dr. Robert W. Kieber. Dr. Kieber will serve his 17th consecutive term in this office.

Dr. Wilbur P. McDonald was named to the Board of Censors. Drs. John T. Rogers and William B. Rost were elected Delegates to the MSMA and Drs. R. Philip Acuff, Allen I. Herman and Ernest E. Weinand were elected Alternate Delegates to the MSMA.

Dr. Edmund W. Kline was elected to membership on the Committee on Public Policy; Dr. John R. McDaniel was elected to a five-year term on the Board of Trustees; and Dr. Mothershead was named to the Executive Secretary Committee.

The newly-elected officers and Dr. Owen W. D. Craig, President-Elect for the past year, will be installed at the Society's annual meeting in December.

Lawrence H. Pifer, *Secretary*

(Left to right) Dr. Earl J. Wipfler, Jr., Secretary, and Dr. Vincent P. Perna, President, welcomed Dr. Robert A. Mayer, Councilor for the Fourth District, to the October meeting of Lincoln-St. Charles County Medical Society meeting.

Grand River Medical Society

The Grand River Medical Society and its Woman's Auxiliary met on October 9 at the Strand Hotel in Chillicothe for a social hour, dinner and program.

The Society's Program Committee presented Dr. Hector W. Benoit, Jr. of Kansas City, who discussed "Vascular Surgery."

Windsor B. Atcheson, M.D., *Secretary*

FOURTH DISTRICT

COUNCILOR
ROBERT A. MAYER, M.D.,
ST. LOUIS COUNTY

Lincoln-St. Charles County Medical Society

The regular meeting of the Lincoln-St. Charles County Medical Society was held at The Mother-in-Law House in St. Charles on October 28. Twenty members were present.

Guests included Dr. Doyle C. McCraw, Bolivar, President of the Missouri State Medical Association; Dr. Robert A. Mayer, St. Louis County, Councilor for the Fourth District; and Mr. Royal O. Cooper, MSMA Field Secretary.

Dr. McCraw, the guest speaker, discussed "Problems Confronting the MSMA." Brief remarks also were made by Dr. Mayer and Mr. Cooper.

Following the address, the President of the Society, Dr. Vincent P. Perna, presided at the business meeting. The Society agreed to contribute $500 to the Missouri State Medical Foundation.

Society officers for 1970 were elected, and it

MSMA President Doyle C. McCraw, guest speaker, (left) and Dr. John C. Soucy discuss "Problems Confronting the MSMA," the subject of Dr. McCraw's talk. Dr. Soucy was elected Secretary of the Society for 1970 at the meeting.

was agreed that dues remain the same for the coming year. The new Constitution and Bylaws were discussed and adopted by the Society, including a proposed name change to St. Charles-Lincoln County Medical Society.

Earl J. Wipfler, Jr., M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR
WILLIAM D. BRADSHAW, M.D., CLINTON

Lafayette-Ray County Medical Society

Nineteen members and guests attended the Lafayette-Ray County Medical Society meeting on October 14 at Maib's Cafe in Lexington. Guests were Dr. and Mrs. Robert Pavlu who recently moved to Carrollton. Dr. Pavlu is in general practice with the Kelling Clinic in Waverly.

The meeting was called to order by President Joe Ward. After a discussion, it was decided to hold the annual Christmas Party at the Richmond Country Club on Dec. 9, 1969.

The election of officers was held and the newly-elected officers of the Society are as follows: President, Dr. W. E. Koppenbrink; President-Elect, Dr. Herbert Huber; Secretary-Treasurer, Dr. Wayne Boydston; Delegates to the MSMA, Dr. Charles Riley, Ray County and Dr. Joe Cope, Lafayette County; Alternate Delegates, Dr. Frank Crozier, Ray County and Dr. Jordan Kelling, Lafayette County.

Wayne Boydston, M.D., *Secretary*

West Central Missouri Medical Society

The West Central Missouri Medical Society met on October 9 at Glenn's Cafe in Butler. Total attendance was 22. The customary social hour and dinner preceded the meeting.

Bill O'Malley

"Take two of these pills twice a day . . . and if you are still making house calls, I'll see you again on December 25th . . . I hope!"

The scientific program was presented by Dr. Max Berry of Kansas City, internist, who gave an interesting and practical program on "Intensive Cardiac Care and Cardiac Ward Management." He was assisted by Drs. John Hebert and Billy Kay. A question and answer period followed his presentation.

President William Haynie presided at the business meeting and election. Minutes of the previous meeting were read and approved. The Secretary-Treasurer reported on correspondence received since the last meeting and gave a financial report. The Program Committee announced that the next meeting will be held in Harrisonville. The place and topic will be announced at a later date.

Dr. Eklund presented the report of the Nominating Committee. Nominations were as follows: President for 1970, Dr. Roy W. Pearse, Jr., Nevada; Vice-President, Dr. C. Braxton Davis, Nevada; Secretary-Treasurer, Dr. Curtis Long, Butler; Delegates and Alternate Delegates to the MSMA: Curtis Long and Carter Luter, Bates County; Alfred Eklund and Ed Jones, Cass County; Robert Magee and William Richter, Cedar County; and Don Giesler and Robert Brownsberger, St. Clair County.

President Haynie called for nominations from the floor. There were none. On motion duly made and seconded, the report of the Nominating Committee was accepted and the Secretary was instructed to cast the unanimous ballot for the officers recommended by the Committee.

The meeting adjourned.

Roy W. Pearse, Jr., M.D., *Secretary*

NINTH DISTRICT

COUNCILOR
E. A. STRICKER, M.D., ST. JAMES

Mid-Missouri County Medical Society

The Mid-Missouri Medical Society held its monthly meeting on October 23 at the Ramada Inn at Fort Leonard Wood.

The election of officers for 1970 was held and the following members were elected: President, Martin M. Hart, Salem; Vice-President, Billy J. Bass, Salem; Secretary-Treasurer, Ted P. Smith, Rolla.

Delegates to the MSMA who were elected at the meeting are Drs. Rae W. Froelich, Lebanon, Laclede County; Clyde S. Miller, Waynesville, Pulaski County; Billy J. Bass, Salem, Dent County; James M. Myers, Rolla, Phelps County; Paul W. Pendell, Rolla, Maries County; and Frank A. Elders, Jr., Cuba, Crawford County.

Dr. Sherwood Baker, from the University of Missouri Medical Center, Columbia, presented a program on the General Practice Residence at Missouri U. and the Preceptor Program for the medical students.

TED P. SMITH, M.D., *Secretary*

TENTH DISTRICT

COUNCILOR
EUGENE T. HANSBROUGH, M.D.,
POPLAR BLUFF

MINERAL AREA MEDICAL SOCIETY

The Mineral Area Medical Society met at the Hoctor Building at Farmington State Hospital on October 23. The meeting was called to order by the President, Tom R. Burcham, M.D. The scientific program consisted of a presentation by Edward L. Eyermann, Jr., M.D., Assistant Professor of Neurology at St. Louis University School of Medicine. Dr. Eyermann's topic was "Advances in Stroke Diagnosis Made Possible by the Regional Medical Program." His presentation was followed by a question and answer period, during which techniques and methods for bringing these advances to bear on the problem of patients in outstate Missouri was discussed.

During the business meeting, the minutes of the September meeting were read and approved.

Election of officers for 1970 was held. Andrew Fraser, M.D., Rivermines, was nominated and elected by acclamation as President. Edward Mardini, M.D., of Bonne Terre was nominated and elected by acclamation as Vice-President. C. W. Chastain, M.D., of Farmington was continued in office as Secretary-Treasurer, also by acclamation.

On motion by Dr. Chastain and seconded by Dr. Appleberry, it was voted that the Secretary arrange the annual medical-legal dinner for a date during the first half of November.

Suggestions about an orthopedic topic were discussed.

Members and guests present at the meeting included Drs. Andrew Fraser, Edward Mardini, C. W. Chastain, William Ford, C. A. Appleberry, Jack Mullen, Kirby Turner, Retus Osborn, Emmett Hoctor, Robert Huekstep, Tom R. Burcham, F. R. Crouch, C. E. Carleton and Drs. Ricardo, Arguellas and Lau of the Farmington State Hospital.

C. W. CHASTAIN, M.D., *Secretary*

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AMA "Medicredit"

(Continued from page 926)

with a $500 tax liability might receive 70% of the annual premium cost as a credit against his tax liability, and a family with a $1200 tax liability might receive 20% of the premium expense. . . ."

He also proposed establishment of a "Health Insurance Advisory Board" to create Medicredit guidelines.

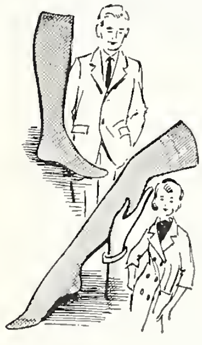
"This board, which would be chaired by the Secretary of Health, Education and Welfare and include the Commissioner of Internal Revenue and public members," Dr. Roth stated, "would review the effectiveness of the program and file annual reports with the President and the Congress."

Basic medical benefits of Medicredit would include:

- Up to 60 days of inpatient hospital services, including maternity services;
- All emergency room and outpatient service provided in the hospital;
- All physicians services, whether performed in the hospital, home, office or elsewhere.

Supplemental benefits to basic coverage also would be eligible for tax credit.

In his testimony, Dr. Roth also stressed the importance of utilizing private insurance carriers, thus taking maximum advantage of private sector competition to help hold costs down.



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Testimony by Rep. Hall

(Continued from page 927)

noted that catastrophic coverage will need careful definition by the Congress.

Let me give you an example, not by disease category, but by expenditure. Whenever an individual or a family is forced by health reasons to exhaust their life savings or to mortgage his or their home, help is needed, even if it has to be from their government!

Thus, Congress might attempt to establish a *pool* from funds supplied for this specific purpose by the financially-able public itself. It could be drawn upon after an individual or family expended a percentage of his or their annual income and, after having exhausted the benefits of their health insurance coverage, when such percentage, let's say, exceeded 20% of the level of his or their last year's adjusted income. Or you may wish to make it the level of his income the month or two just prior to his illness, figured on an annual basis.

Mr. Chairman, I know that the statement I have just read might well come as a shock to those who thought of me as a foe to *any* federal participation in health care. Of course, that is not the case, as my support of the "eldercare" proposal in the 89th Congress will attest.

My suggestions have come about as a result of my professional background, as well as my realization and recognition of changing times, customs and acceptances.

I have considered some type of catastrophic health coverage for a long time, yet I have, in my own mind, hesitated to involve the federal government any further in the field of individual responsibility than absolutely necessary. However, it is obvious that the time is upon us when changes in the nation's health programs are on the horizon *if*, in fact, are not already here. It is, therefore, my intention to try to make the best deal possible, not only for the government, but for the states, the family and the individual.

Mr. Chairman, I am speaking of quality health care for all our people, not just those in absolute need. I, for one, would like to assure you that members of the medical profession also are concerned about providing good health care for all Americans. I believe that there is a need for this kind of legislation, and I think the time has come for its enactment.

The Physician's Obligation

(Continued from page 918)

supervisors that his role is a staff role and not a managerial role. He (1) analyzes, (2) reviews, (3) trains and (4) follows up the implemented solutions to determine if they have achieved the desired management objectives. (5) He is not a threat to anyone. (6) He can make jobs easier and an institution more efficient and competitive in the health care system.

The analytical tools used by the engineer include work measurement, work simplification, quality control, performance evaluation, human relations, materials handling, computers, systems analysis, statistics, queing theory, linear programming, critical path methods, value analysis and scheduling theory. He must design or assist in the designing of surveys to quantitate job satisfaction, attitudes toward work associates, interdepartmental cooperation, organization identification, attitudes toward immediate supervisor, performance evaluations, communication, administrative policies, financial satisfaction, patient care and consumer demands. The data accumulated are analyzed and fed back to management for use in goal setting, planning, policy and procedure development and education.[6, 14, 18]

Surveys

The parameters discussed in the above review are the ones which must be surveyed to permit the development of a meaningful plan for managerial improvement. The following general information is the pattern frequently obtained on current health care facilities.

Typically, most health care units are already in existence with an aging physical plant. The middle management personnel within the unit are often tenured employees who are loyal to the institution. They are not always motivated to respond to leadership and are resistant to change. Employees in most levels below physicians and administrators have a high school education but limited college experience. Their education has been mostly on-the-job training and on-the-job experience. They have learned to supervise by trial and error under a system with restrictive personnel policies not oriented toward employee development. Employees below the middle management level frequently have formed unions that will be strong enough to pressure for a number of management changes. These changes will put a stress upon the institution's financial resources and management structure. Simultaneously, the institution is being pressured to provide more comprehensive services to its patient population in order to stay competitive in a better financed health care system. Tighter control over operational moneys by various consumer groups is turning the area in which health care facilities operate into a buyer's market. The personal service budget, capital investment, operational budget, patient service statistics and earnings are available as basic parameters, and the sources of stress enumerated are typical management problems.

Plan

After the engineer or managerial consultant has surveyed the above areas and has analyzed the data and management's stated objectives, he will develop a plan to improve all the areas of operation he has studied. Management must now review and fully understand this plan. If accepted and considered feasible, the acceptance should lead to a full and unreserved commitment of management to the plan. To insure acceptance by all levels of management, it should be thoroughly explained and all contingencies should be considered. All managers will give the plan much more positive support if it is understood and if suggested contingencies have been considered. However, the final decision regarding its implementation remains entirely with the top management group and the owners.[12]

Based on the consultant's recommendations, the policies and procedures of the facility will need to be updated. Management can set more definite goals, such as rearrangement of work functions, according to the principles of layout planning. This will relocate related jobs for closer geographic proximity. Work simplification comes from the elimination of repetitive and nonessential tasks, many of which are ritualistic in their nature. The introduction of quality control measures at all levels, such as random checks on the effectiveness of housekeeping, will stimulate the pursuit and maintenance of better standards. Performance evaluations and improved communications from the bottom up as well as the top down will stimulate better employee and supervisor performance if it is carried out equitably, systematically and without bias, and if every employee understands that the performance evaluations are for his own good as well as the good of the institution.[2, 12, 22, 23]

Human relations also will be assayed in the initial survey to seek sources of frustration and misunderstanding and to seek out the various motivations for inferior or superior performance. More efficiently planned materials handling can reduce work. Computers can enhance communications, inventory control and accounting abilities and can be programmed to do many more repetitive chores requiring great quantitated memory. A better systems design should improve the organizational relation of work and people. The statistics required before and after the survey will be of two types—descriptive and analytical. The first is required for inventory and the second for quality control, the testing of hypotheses and decision making. Queing theory can be used to predict and partially control the facility patient load. Linear programming and critical path methods can be used to study the significant relations and sequential coordination of medical care functions in all areas. Value analysis can determine the economic worth of various undertakings. Scheduling theory and queing theory can be combined to improve the prediction of operational demands on facilities, manpower and supplies.

Based on the initial management survey, top management must decide on achievable, quantifiable goals for improving institutional efficiency and management performance. These goals become the objectives for the plan of action.

IMPLEMENTATION

Before the final plan for management improvement is initiated, the health care facility's written policies and procedures, layout and internal management organization must be updated to conform to the plan.[6, 23] Also, management must understand and be committed to the plan and the updated policies and procedures. The middle managers and affected employees must be taught the new approaches with an institution-wide educational program. The plan can be implemented with each phase preceded by an educational program. A more rapid implementation can be effected, depending on the local situation, and the resources management can contribute to the implementation, but management commitment and staff education must precede every change. Physicians respond to management responsibility when the organization structure permits,[28] but they would probably do even better when the acquisition of responsibility is coupled with management training and an improved management system for goal implementation.

One example of the intra-institutional management educational program comes from a personal communication with Mr. H. H. Hixson, the Hospital Administrator for the University of California Medical Center in San Francisco.[20] Mr. Hixson makes a systematic use of the publications and training aids available through the American Management Association. The educational program to improve supervisory skills presently exists at three levels in his hospital.

First, supervisory employees are being sent regularly to off-campus seminars sponsored by universities and professional associations. Second, a packaged curriculum has been developed by the personnel department that covers planning, organizing, controlling and directing (management functions) and decision making and communication (the management tools). Enrollment in this curriculum is restricted to persons for whom a need exists. The third element is administered at the departmental level. At this level, inservice training programs are geared to meet the specific needs of departments. These latter programs are intended primarily to improve the technical competence of individuals.

Two of the most recently available seminars were "Management of the Modern Hospital (Organization and Administration)," The American Management Association, New York, May 21-23, 1969 and "Institute on Financial Management for Hospital Administrators," American Hospital Association, Chicago, May 19-20, 1969. Advance listings of seminars covering all management and middle management functions are available from both of these sponsoring organizations. Any managerial development programs should take maximum advantage of these comprehensive, professionally-prepared educational programs. These would be logical seminars for the top management team in the hospital, including the physicians.

In planning a development program, a comprehensive list of reprints on specific management problems is available from The American Management Association, 135 West 50th Street, New York 10020. A list of 28 current brochures useful for a health facility training program is given in Appendix 1. Whenever a management training program is being developed, the training coordinator should obtain the most current-

(Continued on page 968)

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Pheniramine maleate . . 7.5 mg.
Codeine phosphate . . . 10.0 mg.
(warning: may be habit forming)
Alcohol, 3.5%

Clears sinuses and nasal stuffiness as it relieves cough
ROBITUSSIN-PE®
Each 5 cc. contains:
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Phenylephrine hydrochloride . . . . . 10.0 mg.
Alcohol, 1.4%

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COUGH CALMERS™
Each Cough Calmer contains:
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Dextromethorphan hydrobromide . . . . 7.5 mg.

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	Robitussin	Robitussin-DM	Robitussin A-C	Robitussin-PE	Cough Calmers
xpectorant	●	●	●	●	●
emulcent	●	●	●	●	●
ough Suppressant		●	●		●
ntihistamine			●		
ong-Acting (6-8 hours)		●			●
asal, Sinus Decongestant				●	
on-narcotic	●	●		●	●

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ly available lists of brochures and other teaching aids.

The facility library, accessible to all professional, administrative and supervisory personnel, should contain a section with current textbooks on management and should subscribe to journals containing current articles on hospital management, such as *Hospitals, Modern Hospital, Hospital Administration, Medical Care Review* and *Hospital Abstracts.* Regularly scheduled journal clubs for joint review and discussion of current journal articles on management problems should be held by those individuals containing management responsibility within a health care facility. In fact, the facility should invest in the teaching facilities requisite to take advantage of all available teaching media for its employees.

Education must be an administratively-supported activity in any health care facility.[7, 8, 16, 19, 21, 24, 26] Not enough physicians, hospital trustees or administrators appreciate that professional and nonprofessional management education is a human capital investment with economic value as great or greater than other forms of capital investment. The educational program requires staff, facilities, operational moneys and employee time. All these should be given to the program through a planned commitment.

The impact that a completely new area of engineering will ultimately have on professional activities in medicine is yet to be determined. The field, designated value engineering, is "defined as a systematic effort directed at analyzing the functional requirements of—systems, equipment, facilities, procedures and supplies for the purpose of achieving the essential functions at the lowest total cost, consistent with the needed performance reliability, quality and maintainability."[29] Certainly, it will create vast management changes that will be directed from within or from without organized medicine depending almost entirely on the acquisition and application of managerial knowledge by physicians. The federal government is rapidly using value engineering in all other fields of resource allocation. It is only natural to assume that it will turn to the same techniques on the expenditure of the medical dollar.

Resurvey

Once the plan is implemented, it is out of date because it will change the whole environment in which the original survey was conducted. For this reason, goals and objectives were quantified initially whenever possible and resurveys determine quantitatively whether previous goals were met. The data from resurveys constitute the basis for new goals to insure progressive management development. Each new plan must be succeeded by another survey. All management levels will come to depend on these surveys to enhance operational efficiencies in various areas and to respond to changing goals. The institutional education programs in management can be enriched by consultants and teaching aids from the American Hospital Association and the American Management Association, studies published on hospital management problems in various journals and books regularly updated in the hospital library and hospital-supported opportunities for continuing educational experiences on various managerial problems. Continually providing the insight requisite to change and to adapt is a vital investment for any health care facility. Lifelong continuing education coupled with management-supported horizontal and vertical advancement opportunities will keep the whole administrative structure of a health care unit more flexible and current.

Conclusion

Modern management philosophy in health care facilities should follow the examples of successful business firms. Participation, education and advancement of managerial insight will progressively modify the authoritarian, professional guild approach to health facility management. Self-education in management science by physicians should be concentrated on the engineering and behavioral science techniques requisite to integrate people and facilities to produce purposeful work with the greatest possible economy and efficiency. The practice of the philosophy requires continuing research into improving the managerial and engineering efficiency of health care facilities, policy revision and education responsive to the mission of the institution and its peoples. Physicians are the key group in this effort since they are the major goal setters. They must receive education in methods for setting goals and in the managerial techniques requisite to do their job most effectively. To be convinced of this need, take any modern management textbook and insert the word "clinician" for "manager" and the word "clinical" for "management" and see what concepts are missing from your working environment. **In managerial terminology, physicians are called upon to fill roles from top management to working supervisors, but only a small minority ever have any training in management science. The effective use of national and local resources to realize health care objectives makes the education of physicians in modern management science techniques a belated necessity.** Every nation-state, including the United States, has a limited amount of capital that can be placed into the health care system per unit time. Physicians have an inherent obligation to insure that the portion committed to the health care system is managed with maximum effectiveness. **Maximum effectiveness is dependent not only on a high level of professional competence and the assumption of management responsibility, but it also requires more formal training in modern management science for physicians.**

APPENDIX 1

Following is a partial list of reprints currently available from The American Management Association, Inc. on principles of management performance and development:

1. Appraisal Interviewing: Flexibility Is the Key
2. Counseling Executives After Merit Rating or Evaluation
3. Do You Know How to Listen?
4. The "Effective" Executive: What Qualities Make the Difference
5. Employee Selection: Don't Overshoot the Mark
6. An Experiment in Management—Putting Theory Y to the Test
7. For Improved Work Performance: Accentuate the Positive
8. Getting Ready for Appraisal; The Interview, and Special Situations
9. Goal-Setting Makes Your Job Easier
10. The Good Foreman—As His Men See Him
11. Ground Rules for Appraisal Interviewers
12. A Guide to Successful Conference Leadership
13. How Much Should You Delegate?
14. The Human Side of Enterprise
15. Introducing the New Employee: How to Convey the Right "First Impression"
16. Joint Venture: The Boss and His Secretary as a Business Team
17. Letter to an Aspiring V.P.
18. Leveling with Others on the Job
19. Management by Objective: Some Principles for Making it Work
20. The Management of Motivation: A Company-wide Program
21. Management the Simple Way
22. Performance Appraisal and Executive Morale
23. The Seven Deadly Sins of Supervision
24. Universals in Management Planning and Controlling
25. What Makes a Good Manager?
26. What to Do About Performance Appraisal
27. What to Do When Salesmen Run Out of Steam
28. Why Workers Say "I Quit"

In addition, the American Management Association publishes an excellent group of textbooks, the most relevant being *Gantt on Management, Guidelines for Today's Executive,* edited by A. W. Rathe.

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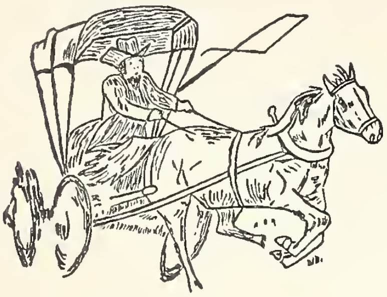

FORTY YEARS AGO

One of the most encouraging incidents in the progress of medicine in Missouri in recent years is the strong appeal to Gov. Henry S. Caulfield's Survey Commission to incorporate a recommendation that the full four-year course in medicine be reestablished at the State University and that there be erected in Columbia a State General Hospital to provide clinical material for the final two years of the course. It was recommended to the Commission that, in the program to extend the medical course to four years, a provision be made for the expenditure of $4,600,000 over a period of ten years to erect the hospital and to provide a new building for the medical school.

Dr. Martin Yates, Fulton, dean of the medical profession of Callaway County, was the guest of honor at a supper given by the Callaway County Medical Society at the Jameson-Muzzy Cabin, which is northeast of Fulton, on Oct. 17, 1929. Dr. Yates has been practicing in Callaway County for 53 years and has served as secretary of the Society for 35 years, with the exception of the year during which he was president. Although he is 77 years of age, Dr. Yates is still actively engaged in his profession and drives his own car.

TWENTY-FIVE YEARS AGO

Because of conditions brought on by the war, the necessary facilities will not be available in New York City for the 1945 Annual Session of the American Medical Association scheduled for June 11-15. As a result, it will have to be held in some other city where adequate facilities will be available.

The Journal is beginning the new year with several changes in its make-up. It is hoped that members will approve the change in the cover and the placing of advertising throughout more of the Journal, as is done by practically all current publications. Since the amount of paper that can be used in each six-month period is set by the government, the Journal must continue to use the given number of pages in each of these periods.

Missouri Medical Services held the first meeting of its Board of Trustees on December 3. The following officers were elected: President, Dr. Carl F. Vohs, St. Louis; First Vice-President, Dr. H. B. Goodrich, Hannibal; Second Vice-President (predicated on changes in the By-laws), Mr. Louis W. Reps, Springfield; Secretary, Dr. Raymond O. Muether, St. Louis; Treasurer, Mr. George W. M. Berry, St. Louis.

TEN YEARS AGO

S. G. Slaughter, M.D., Fredericktown, has been named a Knight of St. Gregory by Pope John XXIII.—The American Hospital Association has appointed David Littauer, M.D., St. Louis, as Chairman of the Committee on Care of the Chronically Ill and of the Aged for a second year.

The medical staff of the Deaconess Hospital, St. Louis, recently named Guerdan Hardy, M.D., St. Louis, as president and George E. Scheer, M.D., St. Louis, as president-elect.—The International College of Surgeons has elected Dr. Claude J. Hunt of Kansas City a vice-president and, also, chairman of the board of trustees.

The September meeting of the Chariton-Macon-Monroe-Randolph County Medical Society was held at the Woodland Hospital in Moberly. Following dinner, members of the Society and guests were privileged to hear a most interesting and informative discussion on "Murder, Mayhem and Mystery" by James P. Wyatt, M.D., professor of pathology at St. Louis University School of Medicine.

The construction of a $1 million, 60-bed Health Institute at the St. Louis University School of Medicine for the treatment and study of mental illness will get underway next year. The Institute was made possible by a gift of $500,000 from David P. Wohl. Mr. Wohl's contribution was matched by grants under the Hill-Burton Program for Missouri.

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